Report on the Administration of the Punjab and its Dependencies for 1920-21.

Lahore :
Printed by the Superintendent, Government Printing, Punjab,
1922.

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Report on the Administration of the Punjab and its Dependencies for 1920-21.

PART I.

GENERAL SUMMARY.

(The "year" throughout this report is not invariably the financial year ending 31st March 1921. At the heading of each chapter, with the exception of Chapter I, a reference is given to the departmental reports which contain details of the subject dealt with. The "year" of the present report is for each such subject the year mentioned in the title of the departmental report so referred to. In general, it may be said that the "year" in Chapters I, IV, V, VII, VIII, and IX means the financial year ending 31st March 1921, in Chapter II it is the revenue year ending 30th September 1920, and in Chapters III and VI it is the calendar year ending 31st December 1920.

The Administration Report for 1911-12 was a decennial report, and as such contained many sections of permanent interest to which reference may be necessary in order to understand the working of the Administration; under the orders of the Government of India these sections are not repeated each year, but a reference is given to them in their place in the several chapters of part II of this report.

Except where otherwise stated, the Punjab in this report refers to the Punjab as at present constituted.)

SIR E. D. MACLAGAN, K.C.S.I., K.C.I.E., *Lieutenant-Governor* from 1st April 1920 to 2nd January 1921 and *Governor* from 3rd January 1921.

The new Government.

1. When the transient events of 1920-21 have been long forgotten, the year will yet be memorable for the change in government which was effected in accordance with the provisions of the Government of India Act. Sir Edward Maclagan, K.C.S.I., K.C.I.E., was appointed, on 3rd January 1921, as the first Governor of the Punjab, with an Executive Council of two Members and with two Ministers. The Hon'ble Sir John Maynard, K.C.I.E., C.S.I., and the Hon'ble Sardar Bahadur Sardar Sundar Singh, Majithia, C.I.E., were appointed Finance and Revenue Members, respectively. The two Ministers nominated from among the elected members of the Legislative Council for the Depart-

ments of Agriculture and Education, respectively, were the Hon'ble Lala Harkishan Lal and the Hon'ble Khan Bahadur Mian Fazl-i-Husain, both of whom, as its first session showed, enjoyed the confidence of the Legislative Council. To them has been entrusted the control over what are now known as "transferred subjects," namely, Public Works, Agriculture, Industries, Excise, Local Self-government, Medicine, Sanitation, Education (other than European and Anglo-Indian) and Registration. The Hon'ble Mr. M. S. D. Butler, C.B., C.I.E., C.V.O., C.B.E., was appointed the first President of the enlarged and reformed Legislative Council.

Security.

2. The calm which generally succeeds a storm was not vouchsafed to the Punjab after the tragic episodes of 1919. The public was eagerly awaiting the decisions of the Hunter Committee, but the publication, on the 28th May 1920, of the report and of the despatches concerning it, which had passed between the Government of India and the Secretary of State for India, failed to satisfy the more vocal sections of the Indian community, bent as they were upon the exemplary punishment of those who had exercised what was considered to be undue harshness in the administration of martial law. Upon the merits or otherwise of that agitation it is not proposed to dwell. The visit of His Royal Highness the Duke of Connaught in the autumn, conveying a message of good-will from His Majesty the King Emperor, undoubtedly had a good effect in assuaging to some extent the bitter feelings which existed before his arrival in India.

3. In the political arena the year under review may be said to have opened with a meeting of the Punjab Provincial Conference at Jullundur in the beginning of April 1920. Bitter views were expressed on the Punjab disturbances and the Khilafat question, and speeches were made in favour of general non-cooperation, including a boycott of the Army and the Police and a refusal to pay taxes. The resolution ultimately passed by the Conference omitted mention of the more extreme measures advocated by some of the speakers, but opportunities of trouble presented themselves. The first occurred on the 20th of April, when a guard of the North-Western Railway headed a strike of five thousand men employed in the Carriage and Wagon Shops. The strike lasted until the second week in June. Then the announcement of the Turkish peace terms in May caused widespread

disappointment throughout the province, and the Central Khilafat Committee used the occasion to work up a number of its followers in Sind to embark upon the ill-fated "Hijrat" to Afghanistan. The Muhajirin were met at important stations during their journey through the province by Punjab agitators whose fanatical speeches soon popularised the movement and induced more and more Musalmans to join the secessionists. For some weeks there was a steady exodus, but when the Afghanistan authorities in August declined to admit any more Muhajirin within their borders, the end came abruptly and disillusionment produced something of a reaction of feeling.

4. Several leaders of the anti-Government party visited the province in October and largely through the excitement raised by their presence and preachings, the Sikh League, at its annual session held in Lahore, adopted the non-cooperation resolution. As far as the resignation of titles and the withdrawal from candidature for the Council elections were concerned, the effect was nugatory, but among the students and professors of the Khalsa College at Amritsar the result was of some moment, while in Lahore the students of the Islamia College and the Muslim High School also went on strike. In Jullundur and Hoshiarpur, too, where there is a large element of returned Sikh emigrants, many violent meetings took place. The intensity of the agitation at length called for some action on the part of Government and on the 25th October the Seditious Meetings Act was proclaimed in the districts of Lahore, Amritsar and Sheikhupura. Later the Act was applied to the towns of Lahore and Amritsar and to the Jullundur district.

5. In the beginning of 1921 a second campaign was opened of boycott against schools aided by Government, a few so-called "national" schools came into being and a "school of politics" did some mischief by sending students into the countryside to preach non-cooperation. It was, however, among the Sikhs that agitation was now particularly fostered by the extremists, the subject of the control of the Khalsa College and of the Golden Temple being kept prominently in the foreground. The reconstitution of the Council and Managing Committee of the College stilled complaints upon the former subject, but the latter problem was, owing to differences among the Sikh community, less

susceptible of solution. After consultation with His Highness the Maharaja of Patiala, a Provisional Advisory Committee was formed to draw up a scheme for the management of the Golden Temple. A large meeting of Sikhs agreed to accept the nominees of Government on the Committee, but the Committee, as contemplated, was still-born for it merged itself in a larger and self-appointed organisation, known as the Shromani Gurdwara Parbandhak Committee consisting of 175 members.

6. Religious reform had now become the watchword of the Sikh malcontents. The Shromani Gurdwara Parbandhak Committee declared its intention of obtaining control over all the Sikh *gurdwaras* and other Sikh religious institutions in the province and of providing for their management. The Akali Dal, organised by this Committee, grew to abnormal proportions and was utilised for the purpose of seizing Sikh shrines and *gurdwaras*. Various seizures of this nature were actually made by the Akali Dal, until the catastrophe referred to in the next following paragraph raised passions yet higher.

7. On the 27th November 1920 certain Sikhs, carrying *kirpans* and axes, had made an attempt to seize the Nankana shrine. They found themselves opposed by a formidable party of *sadhus*, armed with *lathis*, under the leadership of the *mahant*, and a collision was only averted by the tact of the Police in handling a delicate situation. In the early morning of the 20th February 1921 another attempt was made, but fire was opened on the invading party which was mercilessly handled by the *mahant* and his followers. A gruesome holocaust of the dead, supposed to number about ninety, ensued, and eventually the military had to be summoned to restore order.

8. The disturbed conditions prevailing in the province threw upon the Police force, and in particular upon the Criminal Investigation Department, a very heavy burden of work. Records were taken of more than 1,400 public political meetings, 375 of which were attended by officers of the department to report on the speeches delivered. The work alone was sufficiently arduous, but the character of this duty has recently become more unpleasant than formerly, because officers are constantly subjected to vilification at such meetings and are at times even threatened with personal violence. It says much for both the officers and the

rank and file of the force that their tone and efficiency were maintained at a high level in circumstances of great difficulty.

9. The criminal statistics of the year under review show an upward tendency and the general unrest and weakening of regard for authority, combined with the present economic situation, give colour to the belief that crime will shortly reach the pre-war level. More murders were committed than in any previous year of the quinquennium, but the success of the vigorous measures taken to deal with *dakaits* from across the northern border is reflected in the fact that only twice in the last decade has the number of *dakaitis* been lower than the figure of eighty reported in 1920. Burglaries, however, were more numerous than before and the high prices obtained for good plough cattle were unfortunately a direct incentive to cattle thieves, who displayed unwonted activity in the riverain tract of the Lahore district.

10. A change of policy is now being carried out in dealing with the criminal tribes of the province. The importance of the economic factor in the reformation of these tribes has rightly been kept in view, and efforts have been made to secure to the inmates of industrial settlements as congenial work as possible and to raise wages where they were below market rates. Transfers to these settlements have been practically limited to habitual offenders, the remaining inmates not so classified being gradually released; and where any such transfer is likely to cause hardship to the family of a bread-winner it is now possible under the amended rules to draft the whole family into the settlement. A feature of the year's working has been the willing co-operation of the Native States of the Punjab, which have, with one exception, agreed to the mutual exchange of tribesmen wanted for non-extraditable offences.

Condition of the people.

11. The spring harvest of 1920 was fair, but the succeeding autumn harvest was seriously impaired by an unusually scanty monsoon, which practically ceased early in the month of August. The sown area decreased by sixteen per cent. as compared with the preceding year and the matured area was less by over thirty per cent. The outturn of wheat was estimated at not much above two million tons,

and compares very unfavourably with the yield of nearly $3\frac{1}{2}$ million tons mentioned in the last report. Stocks of food-grains were reported to be generally insufficient.

12. Prices ruled high throughout the year, wheat, gram and barley all realising thirty per cent. more than in 1919, but there was a slump in cotton. The rates of sales and leases of agricultural land in the colonies rose still further and record prices were obtained at the auction of sites. An important feature of the year's working in the Lower Bari Doab Canal colony has been the influx of new military grantees. The health of the people was good and it is also satisfactory to record that the curve of birth rates has reached the point marked by the average of the previous quinquennium.

Finance.

13. It was not to be expected that the unusually large provincial balance of Rs. 260 lakhs would long remain intact after the restrictions imposed by the necessity for economy during the war had been removed. The revenue of the Punjab had, indeed, improved by nearly two crores of rupees in seven years, but not more than a quarter of the increase had been derived from ordinary heads of income, the remaining three-quarters representing proceeds from the sales of Government estates, waste land and town sites in the colony areas. Too much stress must not, therefore, be laid on the expansion of a revenue drawn so largely from sources of a non-recurring character. The actual advance in the year 1920-21 has been about Rs. 15 lakhs, but the sale of waste land and the like during the twelve months yielded no less than Rs. 19 lakhs. Irrigation, Excise and Stamp Revenue contributed towards the increase, while land revenue fell by Rs. 5 lakhs and was only Rs. 9 lakhs above the figure which was reached seven years ago.

14. The need for revision of the pay of non-gazetted establishments had been keenly felt for some time and the year under review witnessed a general rise in expenditure of that nature, amounting roughly to a crore of rupees per annum. The high rates of grain compensation, enhanced contingent charges and the return of many officers from military duty were additional factors which helped to swell the debit side of the accounts. The total increase over the previous year's figure was Rs. 116 lakhs, most of which

occurred under the following heads:—Civil Works (Rs. 20 lakhs), Land Revenue and Education (Rs. 16 lakhs each), Police (Rs. 11 lakhs), Law (Rs. 10 lakhs), Irrigation Works and Medical (Rs. 8 lakhs each), and General Administration (Rs. 6 lakhs), in the last item being included Rs. 1½ lakhs on account of the reforms scheme, inaugurated only three months before the close of the year. In consequence of this heavy expenditure the closing balance fell by Rs. 73 lakhs to Rs. 187 lakhs.

Agriculture and Rural Economics.

15. The rivalry between the two wheats known as Punjab-11 and 8-A continues to excite interest, and although at present the former is being more extensively sown in canal colony areas, the latter is making headway elsewhere in the province. Experiment and research work have been directed to the examination of earcockle disease in wheat, the effects of green manuring, the search for the crop best suited to "bara" lands, the protection of stored grain from weevils and other objects affecting the welfare of the agricultural community. The scarcity of fodder caused the peasantry to sow larger areas than usual with fodder crops, at the expense of cotton, the average prices of which dropped from over thirteen to less than nine rupees to the maund. Demonstration farms have attained a wider popularity and a travelling exhibition in entomology and sericulture, prepared by the Agricultural Department, drew many interested spectators at the places which were visited by the exhibition.

16. The unusual drought naturally affected reproduction in the forests of the Punjab and incidentally conduced to many widespread fires, the burnt area being slightly more than fourteen thousand acres. The extraction of all valuable timber is now carried out departmentally and is expected to yield good results. Prices reached a high level in the winter of 1920-21 and then fell. A surplus of some Rs. 18½ lakhs, against a quinquennial average of Rs. 9 lakhs, is, however, an indication of the increasing commercial value of forests to the province and of the success of a more intensive system of management under revised working plans and with improved methods of extraction.

17. The weakening of the monsoon as early as the beginning of August caused an intense demand for water throughout canal-irrigated areas, and this demand could not

always be satisfied, distribution by rotation being resorted to on some canals. The total irrigated area (ten and a quarter million acres), though less than the previous year's record figure, was well over half a million acres above the triennial average. The net revenue earned by the Punjab canals was Rs. 326 lakhs, or a return of just above 14½ per cent. on the capital invested.

Co-operation.

18. Notwithstanding the unfavourable conditions already alluded to, there was every sign of an increasing interest in co-operative work on the part of the people. The number of societies and of their members rose enormously during the year and although the organisation of credit societies had to be restricted, this side of the movement undoubtedly was of great service in affording assistance to members. The formation of four new central banks and of thirteen new banking unions marks the progress of secondary institutions, which have increased their working capital in four years from forty-six to more than a hundred lakhs of rupees. The success of agricultural societies, too, is beyond dispute, and generally speaking excellent progress was made in the reduction of liabilities and in the accumulation of assets.

19. The two most interesting features of the year's report are the inauguration in Jhang of the first co-operative mortgage bank in India, and the attempt to combat the evil of scattered holdings by the organisation of special consolidation of holdings societies. The former started well, while the results already achieved by the latter are noteworthy, repartition having been completed in forty-four villages with the aid of a special staff.

20. The variety of the work that can be brought within the scope of co-operative effort is illustrated by the formation of nearly a hundred arbitration societies, whose object is the prevention of unnecessary litigation, by the opening of night schools designed to teach the elements of education to adult members, by the mutual assistance given for silt clearance on inundation canals, land reclamation and the like. The co-operative movement has now securely established its position in the economic development of the province. There is reported to be still a lack of public-spirited helpers; other

retarding factors are the present economic situation and the nature of the movement itself, which demands that progress should be cautious ; but on the whole that progress in the Punjab compares favourably with the results reported from other provinces of India.

Vital Statistics and Medical Relief.

21. The birth rate of the province, by reaching the level of the quinquennial average, showed a gradual return to normal conditions after the ravages of pestilence and war, and the biological theory of reaction would lead to the expectation of a still further advance. Fortunately, too, there were no serious epidemics during the year. Cholera was almost non-existent until some imported cases from Hardwar in the summer caused a sporadic outbreak which was quickly checked. Plague was confined principally to the bubonic variety and resulted in a substantial reduction in mortality as compared with 1919, while proportionately small increases in deaths from dysentery and respiratory diseases accounted for the fact that the death rate was on the whole slightly higher than in the preceding year. Influenza was prevalent in a few districts, but in a mild form. The year, therefore, may with good reason be described as healthy.

22. The existing conditions for female medical relief are still discouraging, but further efforts were made to counteract the prevailing apathy by offering stipends to girls in the upper classes of schools, provided they entered the M. P. L. class of the medical school at Ludhiana after passing the entrance examination. Endeavours to attract women into the provincial service for women sub-assistant surgeons met with little success ; out of 18 women approached on the subject only 7 consented to relinquish their duties under local bodies.

23. For the dissemination of knowledge of elementary hygiene among the people, the new education bureau will play a prominent part by the preparation and distribution of lantern slides for the illustration of lectures to be delivered throughout the countryside. An important advance, too, has been achieved in the establishment of a state faculty of public health which will be able to procure for medical graduates the training and qualification that formerly necessitated at least a year's residence in England.

Excise.

24. Notwithstanding the application of various expedients, such as the raising of duty and the reduction of liquor shops, the revenue from excise generally and from liquor in particular shows no sign of abating, last year's record figure of Rs. 129 lakhs being exceeded in the year under review by over Rs. 18 lakhs. It is estimated that the people of the province spent a crore of rupees on liquor and beer alone and the consensus of opinion is that the decrease in consumption of country spirits and the corresponding increase in consumption of spiced spirit have been brought about by the sealed-bottle system, the original intention of which was merely to prohibit sales in small quantities. The fact that the two districts of Lahore and Amritsar consumed in the year under report as much spiced spirit as the whole province did four years ago will perhaps necessitate separate taxation on this class of spirit. Owing to the fall in demand, due to the demobilisation of troops, less beer was brewed than in the preceding year.

25. The raising of the issue price of opium from Rs. 32-8-0 to Rs. 40 per seer, the closing of more shops and the rationing of allotments led to a diminished consumption of that drug. The principal feature of the year's report has been the solution of the problem of opium grown in the Punjab and in the Simla Hill States. When the consumption of this Punjab opium was stopped in Patiala, Nabha and other States in the plains, it took the place of excise opium as a commodity worth smuggling into the Punjab States and elsewhere. A further difficulty arose. The cultivators in the hills depended largely on their opium crops for the payment of their revenue. The stoppage of its licit sale in the States in the Ambala division made the produce a glut in the market. Prices went down, large balances accumulated and the situation became somewhat embarrassing. Eventually it was decided to prohibit the consumption of excise opium in the Jullundur division and of non-excise opium in the rest of the province, supplies of excise opium being cut off in the Jullundur division in October 1920. This gave a great fillip to trade in hill opium, and its price suddenly equalled the price of excise opium. There was not much variation in the consumption of *charas* and *bhang*, but sales of cocaine showed signs of increasing.

26. A considerable amount of interest was taken by the Legislative Council in the problem of liquor consumption, and a resolution on the subject of local option was carried towards the close of the year. The Standing Committee of the Council on Excise decided upon the introduction of a system of rationing liquor shops similar to the system already in vogue for opium shops, and the scheme has now been applied to nine districts in the province.

Trade and Industry.

27. Among the factors governing the trade of the province mention has to be made of the uncertain exchange, restricted railway facilities and shortage of coal supply while the *swadeshi* movement also made itself felt to a slight extent. The growing requirements of cotton ginning and pressing factories created a larger demand for coal and coke, and notable increases occurred in the imports of bars, sheets and girders, railway materials, timber, machinery and Indian piece-goods. On the other hand, less foreign piece-goods, manufactured brassware and kerosine oil entered the Punjab than in the preceding year. The principal export was of wheat for which there was a big demand, but the export of other food-grains was restricted by Government control and exports generally fell far short of the figures for the preceding year. At the close of the year there was a heavy adverse balance of trade. Karachi was, as usual, the best customer of the Punjab, its share of provincial exports, chiefly wheat, increasing from 31 to 34 per cent of the total.

28. The net imports of gold bullion increased by over Rs. 54 lakhs, and of silver bullion by nearly Rs. 93 lakhs, while the net import of silver coin fell by more than two crores of rupees.

29. The discontinuance of trade relations between Russia and Afghanistan led to a brisker exchange of goods between the latter country and the Punjab, exports and imports both showing considerable increases. Raisins and almonds were freely imported, while European and Indian piece-goods as well as sugar were sent across the border in larger quantities than usual. The import trade with Central Asia declined in weight, but the value of imports was higher than in the preceding year, raw silk being the principal commodity which exhibited an increase both in weight

and value. Exports were larger, though piece-goods lost ground. In the case of Tibet both imports and exports declined in weight, but the value of imports was slightly above the figure of the previous year. The cheap Indian piece-goods are reported to have practically ousted the European articles in the export trade to that country. In respect of trans-frontier trade generally there was a fall of about Rs. 8 lakhs in the balance of trade in favour of the Punjab, as compared with the year 1919-20.

30. The new Department of Industries made a promising start, notwithstanding unfavourable economic conditions. As a tentative measure six industrial surveyors have been appointed to travel constantly through the province and keep the Director in touch with local industries. Instruction in the five weaving schools has at the same time been put on a more scientific basis. There has been an increase of 38 in the number of factories, and the average number of employés in factories subject to the Factory Act has risen from about 39,000 to 42,500. Considerable labour unrest was evident, especially in large centres, the most serious strike, which lasted for over two months, occurring in the workshops of the North-Western Railway.

Local Self-Government.

31. While reports received from the Ambala district show that there is a demand for an extension of the local franchise in consequence of the imposition of a professional tax on merchants, contractors and shop-keepers, the other side of the picture is seen at Gurgaon, where elections are declared to be not only farcical, but actually unpopular. In Lahore there were on occasions some fairly keen contests for seats on the district board, and a large percentage of electors registered their votes. To what extent the present representatives serving on district boards perform their duties is, however, a question the answer to which varies with the locality, the relative educational equipment of members and sometimes with the comparative accessibility of head-quarters from outlying portions of their districts.

32. Boards are at length beginning to realise that Government cannot pour out an ever-increasing stream of grants-in-aid, and the proposals made in some districts to impose fresh taxation and to raise local rates are hopeful signs for the future. It is, indeed, in this matter of finance

that members of district boards lack experience, as is evidenced by the fact that, while income apart from Government grants actually decreased, expenditure was in excess by ten lakhs of rupees. Nor is the allotment of expenditure always made with the best of discrimination, for in some districts inadequate sums have been set aside for medical relief and sanitation, in order to enable the boards to carry through an educational programme which aims at multiplicity of schools rather than improvement in educational institutions. On the other hand, some boards have shown good practical sense in the encouragement of demonstration farms and agricultural schools.

33. In the case of municipal elections there has been a large number of unopposed returns, and where contests were vigorous they were not infrequently conducted on sectarian lines and were occasionally vitiated by corrupt practices. Favourable reports have come in from the municipalities of the Multan division, but the east of the province is generally more backward. It is, however, in the central Punjab that the success or failure of local self-government can best be gauged. In Lahore and Amritsar there was displayed, during a large portion of the year, a spirit of initiative and keenness, which, if confined to its legitimate sphere, would promise well; but unfortunately an increasing penchant for political controversy latterly manifested itself in the former town and municipal administration naturally suffered.

34. The income of municipalities increased by over seventeen lakhs of rupees in the year and expenditure was kept within the figure for income—a point in which municipal committees compare favourably with district boards. The prevailing tendency towards the substitution of octroi by a terminal tax continued and several important towns, including Lahore and Amritsar, are preparing for the change. The abolition of the vexatious system of refunds is one great merit of the terminal tax, which, however, has defects and, when applied only to rail-borne goods, can be evaded by the simple device of detraining the goods at a neighbouring station and carrying them to the town by road.

Education.

35. In the department of education the year was noteworthy for some comprehensive changes. At the beginning of the year the cadre of the Indian Educational Ser-

vice was numerically strengthened by promotions from the Punjab Educational Service, and the revision of the latter service took effect from 1st April 1920, on a time-scale basis of pay, with six selected posts. Improvements were also carried out in the Subordinate Educational Service, each grade being advanced in the matter of pay to the next higher grade under the old scheme. Every district now has its own inspector, a member of the Punjab Educational Service, with assistant inspectors for specified portions of districts.

36. The progress of education has been well maintained, though its advance has been more apparent in secondary than in primary institutions. In the latter type of schools there are now more than a quarter of a million pupils, but the numbers in secondary schools are approaching 200,000 and show no signs of diminishing. It is generally admitted that primary education, hampered by its lack of good buildings and capable teachers, is at present in a less progressive state than secondary, but possibly the introduction of the Primary Education Act and the enforcement of its provisions by an increasing number of towns may have a stimulating effect. In all classes of schools much attention is rightly devoted to physical training.

37. It is a matter for regret that the number of boys undertaking an industrial training shows a steady decline. The cause is not far to seek, for as soon as a boy's labour is worth anything—and this is quickly the case under present conditions—the father withdraws him from school and puts him to work. On the other hand, the training of teachers and the instruction of pupils in agriculture have made excellent progress, and the demand for admission to the Lyallpur College continues to be so insistent that steps are being taken to increase the capacity of that institution.

The new Legislative Council.

38. The last few months of the year 1920 witnessed great activity in preparation for the elections under the Reforms Scheme. It might have been expected that, in consequence of the history of the province during the previous eighteen months, non-cooperation would have made more headway in the Punjab than elsewhere, but although in some places intimidation was practised by the irreconcilables, the voting in the general constituencies was as high as 32 per cent., while in rural constituencies the percentage was slightly

larger. The composition of the Council of 93 members was as follows :—The President, the two members of the Executive Council, 13 nominated officials, 6 nominated non-officials, and 71 elected members (including the two Ministers). The elective seats comprised 20 for non-Muhammadans (7 for urban and 13 for rural constituencies), 32 for Muhammadans (5 for urban and 27 for rural constituencies), 12 for Sikhs (1 for urban and 11 for rural constituencies), 4 for representatives of land-holders, one of whom is the Minister for Education, 1 for a representative of the Punjab University, 1 for a representative of the Chambers of Commerce, and 1 for a representative of Punjab Industries—this last is held by Minister for Agriculture. The new Council met on the 8th of January 1921, when the oath of allegiance was taken by 89 members. The session was a busy one, twenty meetings being held between the 23rd of February and the 19th of March. About 350 questions were put and answered and 24 resolutions were moved. Some of these latter were, indeed, on subjects of minor importance, but in the case of others spirited debates took place.

39. The first resolution of general interest was one recommending that the indemnity imposed upon Amritsar should be remitted. After a debate extending over portions of two days the resolution was carried by a majority of 48. A still lengthier debate followed upon a resolution proposing that the Local Government should introduce a bill to revise the law relating to charitable and religious endowments. This resolution also was carried, but another, recommending the grant of an amnesty to convicts still serving sentences inflicted under martial law, was lost by the narrow margin of two votes. On the 16th of March the Council adopted a motion advising the appointment of a committee to propose adequate compensation to the families of those killed and to those injured at the Jallianwala Bagh and other places during the disturbances in 1919 on the scale followed in similar cases for Europeans. Finally, the tone of the Council's deliberations was marked by the unanimous adoption of a resolution recommending a representation to the Governor-General in Council regarding the necessity of arranging an All-India Round Table Conference of leading officials and non-officials "to consider the necessary steps to be taken to reconcile the people and to maintain law and

order and to ascertain how it is possible to secure co-operation."

40. In disposing of the budget the Council, though generally speaking it rejected no important demands for expenditure in its first session, disallowed altogether the expenditure on the Publicity Committee and so brought publicity activities to a close.

PART II.

DEPARTMENTAL CHAPTERS.

CHAPTER I.

Physical and Political Geography.

1.—Physical Features of the Country, Area, Climate, and Chief Staples.

(See pages 1—16 of the report for the year 1911-12.)

2.—Historical Summary.

(See pages 16—30 of the report for the year 1911-12.)

3.—Form of Administration.

(See pages 30—48 of the report for the year 1911-12.)

4.—Character of Land Tenures and System of Surveys and Settlements.

(See pages 48—58 of the report for the year 1911-12 and the Punjab Settlement Manual.)

5.—Civil Divisions of British Territory.

(See pages 59—62 of the report for the year 1911-12.)

6.—Details of the last Census—Tribes and Language.

(See pages 62—71 of the report for the year 1911-12.)

7.—Changes in the Administration.

1. SIR EDWARD MACLAGAN, K.C.S.I., K.C.I.E., continued to hold charge of the Province throughout the year under report.

2. The reformed system of Government was introduced on 3rd January 1921 and Sir Edward Maclagan was appointed the first Governor of the Province with an Executive Council consisting of two members and with two ministers. The Hon'ble Sir John Maynard, K C.I.E., C.S.I., and the Hon'ble Sardar Bahadur Sardar Sundar Singh, Majithia, C.I.E., were appointed Members of Council for the Finance and Revenue Departments, respectively; and the Hon'ble Lala Harkishan Lal and the Hon'ble Khan Bahadur Mian Fazl-i-Husain were nominated Ministers for the Agriculture and Education Departments, respectively. The Legislative Council was also enlarged and the Hon'ble Mr. M. S. D. Butler, C.B., C.I.E., C.V.O., C.B.E., was appointed its first President.

3. Mr. C. J. Hallifax, C.B.E., was appointed Financial Commissioner with effect from 3rd January 1921 in the vacancy of Sir John Maynard.

4. An additional Judge was appointed temporarily to the High Court during the winter months as usual, for the inspection of subordinate courts.

8.—Relations with Tributary States and Frontier Affairs.

I.—PHULKIAN STATES.

5. Mr. L. M. Crump, C.I.E., I.C.S., held charge of the Agency from 1st April 1920 to 2nd June 1920. On his proceeding on leave on medical grounds, Lieutenant-Colonel A C. Elliott, C.B.E., Commissioner of the Ambala Division, held collateral charge of the Agency from 2nd June to 17th November 1920, and sole charge thereafter. The post of Personal Assistant remained vacant.

PATIALA.

Area, 5,942 square miles; population, 1,499,739; approximate revenue, Rs. 115 lakhs; army and police, 4,911; Major-General Maharaja Sir Bhupendra Singh, G.C.I.E., G.B.E., Sidhu Jat; aged 30; has a male heir; salute, 19 guns (including 2 personal).

Personal.

6. His Highness the Maharaja was not in very good health during the year. He passed the summer at Chail and the winter in Patiala, but on medical advice left Patiala on the 16th of March and sailed from Bombay for England on the 19th of March. On 27th April 1920 His Royal Highness the Crown Prince of Roumania visited Patiala for 4 days as the guest of His Highness. On 23rd October His Highness Prince Amoradhat of Siam spent a day in the State, and His Excellency the Governor of the Punjab was also a guest of His Highness from the 16th to the 18th of December. The Maharaja attended a Provincial Darbar at Lahore in January 1921 and in the following month was present in Delhi at the Punjab Conference and at the inauguration of the Chamber of Princes by His Royal Highness the Duke of Connaught.

Administration.

7. The designation of the Chief, Home and Foreign Secretaries was altered to Prime Minister, Home Minister and Foreign Minister, respectively, while the Chief Justice, in his capacity of *ex-officio* Judicial Secretary, became Judicial Minister. During the

Maharaja's absence from the State an administrative committee, with the Prime Minister as president, conducted affairs in the State. Following upon the raising of the status of the Chief Court to a High Court, two District and Sessions Judges' courts were established and separate *naib nazims*, increased in number from 12 to 21, were appointed for the disposal of criminal and civil cases. Three new agricultural co-operative societies were organised in the State.

Military.

8. The total strength of Imperial Service Cavalry (Rajindra Lancers) maintained during the year was 605. The regiment formed a part of the escort of His Royal Highness the Duke of Connaught at Delhi.

Crops and irrigation.

9. Rainfall was insufficient for the sowings of both spring and autumn crops and, although a larger area than in the previous year was cultivated, the value of the crops showed a decrease. All but three quarters of a lakh, out of the land revenue demand of Rs. 45 lakhs, was collected during the year. There was an ample supply of canal water during *kharif*, but the absence of rain during *rabi* caused a shortage and the demand could not be fully met.

Public health.

10. The birth rate rose from 29·29 *per mille* to 30·21 and the death rate showed an increase from 19·45 to 22·02. Births numbered 45,311 and deaths 32,925.

Jind.

Area, 1,259 square miles; population, 308,183; approximate revenue, Rs. 25 lakhs; army and police, 1,501; Lieutenant-Colonel Maharaja Sir Ranbir Singh, G.C.I.E., K.C.S.I., Sidhu Jat; aged 42; salute, 15 guns (including 2 personal).

Personal.

11. His Highness spent 4½ months at Bhim Tal, during which time his health was indifferent, and the remainder of the year in his capital, except for a brief stay at Lahore where he was present at the Provincial Darbar. The Maharaja also attended the functions at Delhi in connection with the visit of His Royal Highness the Duke of Connaught. His Excellency the Governor accompanied by Lady Maclagan spent the 13th and 14th December 1920 at Sangrur, and during the visit performed the opening ceremony of the King George V Coronation Wing of the Victoria Golden Jubilee Hospital.

Administration.

12. The three most important administrative changes during the year were the re-organisation of the accounts department, the disbandment of certain useless units of the local army and the inauguration of a representative assembly of 36 elected and 9 nominated members. The assembly is convoked with a view to obtaining public opinion on local affairs.

Military.

13. There was no change in the strength or the personnel of the Jind Imperial Service regiment.

Crops.

14. The absence of rainfall after the month of July resulted in the complete failure of unirrigated crops, and the outturn of irrigated crops was below average. The area of matured crops decreased by 60,000 acres as compared with the preceding year.

NABHA.

Area, 928 square miles; population, 263,334; approximate revenue, Rs. 22½ lakhs; army and police, 1,074; Maharaja Ripudaman Singh, Sidhu Jat; aged 38; has a male heir; salute, 13 guns.

Personal.

15. His Highness' health was fair during the year. He spent a large part of the year at Dehra Dun and also visited Simla. His Excellency the Governor of the Punjab paid a visit to the State on the 15th and 16th December 1920.

Administration.

16. Pandit Sri Krishna Joshi was appointed Foreign Minister, and Sardar Bakhshish Singh, formerly officiating as Foreign Minister, was made Census Superintendent. Revenue demands were collected in full, and outturn of harvests was reported to be average. There were 4,454 births and 3,191 deaths in the State.

II.—STATES OF THE BAHAWALPUR AGENCY.

17. Lieutenant-Colonel A. J. O'Brien, C.I.E., C.B.E., I.A., held charge of the Agency from the 1st April 1920.

BAHAWALPUR.

Area, 15,000 square miles; population, 781,191; approximate revenue, Rs. 44½ lakhs; army and police, 1,321; Nawab Sadiq Muhammad Khan, Abbasi V, Daudputra; aged 16; salute, 17 guns.

18. His Highness the Nawab enjoyed excellent health during the year and has taken to manly sports. Mr. M. S. Leigh remained in charge of His Highness as Tutor until February 1921 when he was succeeded by Mr. Bolster.

Personal.

19. Mr. Davis, Chief Engineer of the State, retired from State service at the close of the year. The balance of the State's funds increased from Rs. 140½ lakhs to nearly Rs. 156½ lakhs, notwithstanding a smaller collection of land revenue due to an indifferent autumn harvest. The Darbar agreed to the Sutlej Valley Project during the year, but the electric and water supply schemes have not yet been carried out owing to the absence of necessary plant. The health of the population was good, and little serious crime occurred in the State. The Darbar contributed Rs. 10 lakhs to the 6 per cent. war loan.

Administration.

Maler Kotla.

Area, 167 square miles; population, 80,322; approximate revenue, Rs. 14 lakhs; army and police, 903; Lieutenant-Colonel Nawab Sir Muhammad Ahmad Ali Khan, Bahadur, K.C.S.I., K.C.I.E., Sherwani Pathan; aged 40; has a male heir; salute, 11 guns.

20. His Highness was in good health throughout the year. As usual he spent a part of the summer at Mashobra. On 1st January 1921 His Highness was created a Knight Commander of the Indian Empire. Mr. Edwards was appointed Tutor to the Sahibzadas.

Personal.

21. Lieutenant-Colonel Qadir Bakhsh, Khan Bahadur, C.I.E., was appointed to officiate as the General Officer Commanding, State Forces, in January 1921, in place of Major-General Sardar Mehr Muhammad, who retired, and Lieutenant-Colonel Sardar Bahadur Mit Singh was placed in Command of the Imperial Service Sappers.

Administration.

22. A deficiency in rainfall caused a poor outturn of crops on unirrigated lands and prices rose, but the collection of revenue was good. The State's share of earnings in the Ludhiana Dhuri-Jakhal Railway rose by Rs. 21½ thousand. Public health was good, and there was an increase in births and a decrease in deaths, as compared with the preceding year.

General.

FARIDKOT.

Area, 638 square miles; population, 150,661; approximate revenue, Rs. 18 lakhs; army and police, 422; Raja Har Indar Singh, Barar Bans Jat; aged 6; salute, 11 guns.

Personal.

23. The health of His Highness the Raja was excellent throughout the year. He spent the summer in Simla, with his mother and brother.

Administration.

24. Owing to the breakdown in health of Rai Bahadur Ganga Sahai, the presidency of the Council of Administration was assigned to Sardar Indar Singh.

General.

25. The State is in a sound financial position, with a balance of Rs. 76 lakhs. Rainfall was very largely in defect and harvests were poor, but most of the land revenue was collected. The Darbar is tackling the question of improvements in irrigation.

III.—STATES OF THE JULLUNDUR DIVISION.

KAPURTHALA.

Area, 598 square miles; population, 284,275; approximate revenue, Rs. 37 lakhs (inclusive of about Rs. 16 lakhs, income from the Oudh Estate); army and police, 1,057; Lieutenant-Colonel Maharaja Sir Jagatjit Singh, Bahadur, G.C.S.I., G.C.I.E., Ahluwalia Sikh; aged 48; has a male heir; salute, 15 guns (including 2 personal); tribute, Rs. 1,31,000.

Personal.

26. His Highness was in good health during the year. He returned from Europe in November 1920 and departed again for Europe in February 1921. On 1st January 1921 he was created a Knight Grand Commander of the Indian Empire for services in connection with the war. On 8th January 1921 he attended the Provincial Darbar at Lahore and a month later was present at the inauguration ceremony of the Chamber of Princes at Delhi.

Administration.

27. In the absence of His Highness, the administration of the State was successfully conducted by the Tikka Sahib and Khan Bahadur Diwan Abdul Hamid Khan, O.B.E., Chief Minister. The Imperial Service Troops were on active service in Mesopotamia for about 6 months during the year.

MANDI.

Area, 1,200 square miles; population, 185,048; approximate revenue, Rs. 8 lakhs; army and police, 161; Raja Jogendra Sen, Rajput Mandal; aged 17; salute, 11 guns; tribute, Rs. 1 lakh.

Personal.

28. His Highness continued his studies at the Aitchison College, residing with his tutor, Mr. Gillmore. His progress is reported to be good. He paid a short private visit to Mandi in April 1920 and spent the summer in Kashmir, and also attended the Provincial Darbar in Lahore and the inauguration ceremony of the Chamber of Princes at Delhi.

Administration.

29. The late Mr. J. R. S. Parsons, I.C.S., gave over charge as Superintendent on 25th May 1920, and was succeeded by Pandit Maharaj Kishan, M.B.E., with Lala Sri Gopal as Assistant Superintendent.

General.

30. Further progress was made on the Larji-Mandi road and the new bridge across the Suketi river is approaching completion. Income and expenditure both rose during the year. There was a steady increase in the output of salt, in the value of the salt sold and in the share of the State and the Government. The report of the Assistant Superintendent, Geological Survey of India, who inspected the quarries, is under the consideration of the Darbar.

SUKET.

Area, 420 square miles; population, 54,328; approximate revenue, Rs. 3¾ lakhs; army and police, 73; Raja Lachhman Sen, Rajput; aged 27; has no male heir; salute, 11 guns; tribute, Rs. 11,000.

Personal.

31. His Highness' health has been good throughout the year. In order to enable the Dowager Rani to perform a pilgrimage in connection with the demise of her husband, Raja Sir Bhim Sen, K.C.I.E., His Highness visited all the sacred places of the Hindus in India. He also attended the Provincial Darbar in Lahore and the inauguration ceremony of the Chamber of Princes in Delhi.

Administration and general.

32. With a view to undertaking settlement operations in the State, His Highness has applied for the services of Lala Mohan Lal, a Naib-Tahsildar of the Lahore Division, as an Extra Assistant Settlement Officer. The income of the State

rose by Rs. 45,000, but was exceeded by the expenditure, principally owing to the Raja's pilgrimage tour.

IV.—STATES OF THE LAHORE DIVISION.

CHAMBA.

Area, 3,216 square miles; population, 141,867; approximate revenue, Rs. 4¾ lakhs; army and police, 419; Raja Ram Singh, Hindu Rajput; has no male heir; aged 30; salute, 11 guns; tribute, Rs. 2,225.

Personal.

33. His Highness was formally installed by Sir Edward Maclagan at Chamba in April 1920. He spent three months during the summer at Jandraghat, his residence near Dalhousie, and also visited Lahore and Faridkot in the winter. Heavy snow-storms and landslips prevented him from being present in Delhi for the inauguration ceremony of the Chamber of Princes. The Raja is reported to have attained considerable personal popularity with his officials and subjects.

Administration and general.

34. Lieutenant-Colonel Powney Thompson's appointment as Adviser was extended for one year with effect from the 20th December 1920. Mr. R. T. Lewis succeeded Mr. R. N. Parker as Conservator of Forests in November. His Highness has evinced much interest in the spread of education in the State and sanctioned the establishment of 13 properly equipped village schools. Settlement operations are in prospect, and excise administration in the State has been brought into closer conformity with that prevailing in the Punjab. The death of Rai Sahib Major Sri Kanth, Commandant of the State Forces, in September 1920, was a serious loss to the military administration in the State.

V.—STATES OF THE AMBALA DIVISION.

SIRMUR (NAHAN).

Area, 1,198 square miles; population, 140,448; approximate revenue, Rs. 6 lakhs; army and police. 479; Lieutenant-Colonel Maharaja Sir Amar Prakash, K.C.S.I., K.C.I.E., Rajput; aged 32; has a male heir; salute, 11 guns.

Personal.

35. His Highness was granted the title of K.C.I.E. for services in the war. He attended the inauguration ceremony of the Chamber of Princes at Delhi on 8th February 1921 and paid another visit to Delhi to say farewell to His Excellency Lord Chelmsford.

Administration. 36. His Highness continued the efficient administration of his State. The extra expenditure of over Rs. 2 lakhs incurred by the Darbar on the Imperial Service Sappers has been generously waived by His Highness and treated as a further contribution to the expenses of the war.

KALSIA.

Area, 188 square miles ; population, 57,371 ; approximate revenue, Rs. 4 lakhs ; army and police, 164 ; Raja Ravi Sher Singh, Jat Sandhu Sikh ; aged 18.

Personal. 37. The young Raja went to Europe for further education under the tutorship of Brigadier-General Money, and was followed by his mother and sister.

General. 38. The Council of Regency continued to administer the State satisfactorily. Education is making good progress. An increase of revenue is expected from the raising of the income-tax rates.

PATAUDI.

Area, 52 square miles ; population, 18,097 ; approximate revenue, Rs. 1 lakh ; army and police, 46 ; Nawab Iftikhar Ali Khan, Bahadur, Pathan ; aged 11.

General. 39. The young Nawab is at the Aitchison College, Lahore, and the State continues to be administered by the Council of Administration. The finances of the State are said to be in a fairly good condition. The question of educating the Nawab's younger brother (Sher Ali Khan) is under the consideration of the Council.

LOHARU.

Area, 222 square miles ; population, 20,621 ; approximate revenue, Rs. 1 lakh ; army and police, 73 ; Captain Nawab Aiz-ud-din Ahmad Khan, Bahadur, Mughal ; aged 35 ; has no male heir.

Personal. 40. Nawab Sir Amir-ud-din Ahmad Khan abdicated in favour of his son, Aiz-ud-din Ahmad Khan, who was installed in April 1920. The Nawab has been admitted as a permanent member of the Chamber of Princes. In recognition of his services on the Frontier he was promoted to the rank of Captain. The Nawab attended the inauguration ceremony of the Chamber of

Princes at Delhi and paid another visit to Delhi to say farewell to His Excellency Lord Chelmsford. His brother joined the Police Department in the State as Assistant Superintendent.

Administration.

41. The finances of the State are moderate, but owing to the State debt the Nawab is anxious to enhance the revenue demand without undertaking regular settlement operations.

DUJANA.

Area, 91 square miles ; population, 25,833 ; approximate revenue, Rs. 1 lakh ; army and police, 113 ; Nawab Muhammad Khurshaid Ali Khan, Bahadur, C.I.E., C.B.E., Pathan ; aged 37 ; has a male heir ; tribute, 50 cavalry on requirement.

42. The Nawab received the further title of C. I. E., during the year. He continued to administer the State personally, with the help of an efficient Diwan, Khan Bahadur Bashir Ahmad. He attended the inauguration ceremony of the Chamber of Princes in Delhi, paid another visit to Delhi to say farewell to His Excellency Lord Chelmsford, and spent a part of the summer in Solon and Simla.

VI.—STATES UNDER THE POLITICAL CONTROL OF THE SUPERINTENDENT, HILL STATES, SIMLA.

43. The chief particulars of these States are given in the following table:—

No.	State.	Area in square miles, including feudatories.	Population in 1921.	Approximate revenue.	Tribute.	Name of Chief.	Race.	Age.	Title.	Whether male heir or not.	Military forces and Police.	REMARKS.
				Rs.	Rs.							
1	Bilaspur ...	448	98,000	3,20,750	8,000	Major Sir Bijai Chand, K.C.I.E., C.S.I.	Rajput	48	Raja ...	Yes	118	Permanent salute, 11 guns.
2	Bashahr ...	3,820	86,077	1,63,170	3,945	Padam Singh ...	Do.	47	Do. ...	Yes	75	Personal salute, 9 guns.
3	Nalagarh ...	256	46,868	1,80,800	5,000	Jogindar Singh ...	Do.	51	Do. ...	No	48	
4	Keonthal ...	16	25,509	1,27,560	...	Hamendar Sen ...	Do.	16	Do.	No	36	
5	Baghal ...	124	25,099	80,630	3,600	Bikram Singh ...	Do.	28	Do. ...	Yes	25	
6	Jubbal ...	288	24,856	6,88,640	2,520	Bhagat Chand ...	Do.	32	Do. ...	Yes	...	
7	Baghat ...	36	9,505	1,01,110	...	Durga Singh ...	Do.	19	Rana...	No	32	
8	Kumharsain	90	12,227	39,380	2,000	Vidyadhar Singh ...	Do.	25	Do. ...	No	...	
9	Bhajji ...	96	14,263	57,030	1,440	Bir Pal ..	Do.	15	Do. ...	No	...	
10	Mailog ...	43	8,296	32,780	1,440	Durga Chand ...	Do.	23	Thakur	No	.	
11	Balsan ...	51	6,137	31,260	1,080	Attar Singh ...	Do.	53	Rana...	Yes	...	
12	Dhami ...	26	4,786	31,000	720	Dalip Singh ...	Do.	13	Do. ...	No	...	
13	Kothar ...	20	3,841	27,750	1,000	Jagjit Chand ...	Do.	34	Do. ...	Yes	...	
14	Kunihar ...	80	1,945	6,000	180	Hardeo Singh ...	Do.	23	Thakur	No	...	
15	Mangal ...	12	1,193	1,200	72	Sheo Singh ...	Do.	33	Rana...	No	...	
16	Bija ...	4	943	11,180	124	Puran Chand ..	Do.	24	Thakur	Yes	...	
17	Darkoti ...	8	610	2,000		Raghunath Singh ...	Do.	32	Rana...	Yes	...	
18	Taroch ...	67	4,219	56,000	288	Surat Singh ...	Do.	34	Thakur	Yes	...	
19	Sangri ...	16	3,213	7,200	...	Hira Singh ...	Do.	70	Rai ...	Yes	...	Tributaries of Bashahr.
20	Kaneti ...	19	2,938	8,690	...	Amog Chand ...	Do.	30	Thakur	No	...	
21	Delath ...	42	1,351	2,743	...	Devi Singh ...	Do.	43	Do. ...	Yes	...	Tributaries of Keonthal.
22	Koti ...	50	9,228	44,154	...	Raghbir Chand ..	Do.	61	Rana...	Yes	56	
23	Theog ...	144	6,300	14,600	...	Padam Chand ...	Do.	35	Thakur	Yes	8	
24	Madhan ...	9	3,729	5,500	...	Randhir Chand ...	Do.	34	Do.	No	...	
25	Ghund ...	28	2,118	5,610	...	Ranjit Singh ...	Do.	38	Do.	Yes	...	
26	Ratesh ...	12	481	700	...	Hira Singh ...	Do.	53	Do.	Yes	...	Tributaries of Jubbal.
27	Rawin ...	7	711	4,591	...	Kidar Singh ...	Do.	44	Do.	Yes	...	
28	Dhadi ...	25	185	1,600	...	Dharm Singh ...	Do.	33	Do.	Yes	...	

Bilaspur.

44. His Highness Raja Sir Bijai Chand, K.C.I.E., C.S.I., was promoted to the rank of Honorary Major on the 1st January 1921. He is now a member of the Chamber of Princes. The former Wazir was dismissed and has been succeeded by Diwan Indar Singh.

Bashahr.

45. The Raja was selected to represent the minor Hill States at the opening ceremony of the Chamber of Princes at Delhi. He continues to take a great interest in the administration of the State, and the Tikka Sahib is doing exceptionally well at the Aitchison College. Owing to the introduction of departmental operations in the Bashahr forests which are leased to Government, there has been a temporary cessation of forest income, as the benefits of departmental working will take time to accrue ; Government is considering the question of making special grants to the State on this account.

Nalagarh.

46. The chief event of the year was the tragic death of the Wazir, Chaudhri Ramji Lal, who was succeeded by Lala Raghubir Singh, late Manager of Baghal State. A new settlement superintendent, Lala Salig Ram, formerly Manager of Bija State, has been appointed in place of Lala Bihari Lal. There is still considerable unrest in the State on account of undue closure of grazing and excessive *begar*.

Keonthal.

47. The young Raja continues to make satisfactory progress at the Aitchison College. The title of Rai Sahib was conferred on the Manager, M. Sher Singh, in recognition of his long and meritorious services in the Simla Hills.

Baghal.

48. The Raja was given power to carry on the judicial administration of the State and now seems to be taking a more serious and practical interest in State affairs. Executive powers are still in the hands of the Manager.

Jubbal.

49. The Raja continued to administer the State, and particularly the forests, with great efficiency. The forest income of the State is still expanding and the Raja has been given greater powers of control.

Baghat.

50. The young Rana is doing well as Manager of the State, and most of the State debt has been paid. Rai Sahib Kanwar Amar Singh, the late manager, died in August 1920.

Kumharsain.

51. The Rana has administered the State with success. An heir was born during the year, but unfortunately died shortly after birth.

Bhajji.

52. The reports received of the Rana's progress at the Aitchison College were not satisfactory. A revenue settlement is being started in the State, with Chaudhri Baldeo Singh, late manager of Mailog, as settlement officer.

Mailog.

53. The Thakur has recently been in full charge of affairs in the State since the departure of the manager to Bhajji. During the year the Thakur married the sister of Raja Bir Sher Jodhi Singh of Barpali, in the Sambhalpur district.

Balsan.

54. Rana Bir Singh died on the 1st March 1920, and was succeeded by Rana Attar Singh, who was installed on the 14th of June.

Kunihar.

55. The Thakur is reported to be a keen administrator and enjoys the confidence of his subjects.

Mangal.

56. Rana Tilok Singh died on 15th February, 1920, and Rana Shib Singh was recognised as his successor, but the installation ceremony has not yet taken place.

Delath.

57. Thakur Narindar Singh died on the 22nd November 1 20, and was succeeded by Thakur Devi Singh.

58. The affairs of other States call for no remarks.

FRONTIER AFFAIRS.

59. The peace of the border was comparatively undisturbed during the year, there being no raid of any importance. A series of reprisals between the Marris, Khetrans and Gurchanis was satisfactorily settled by the Chiefs' Jirga. A similar outbreak between two sections of the Gurchanis was suppressed by the prompt action of the Gurchani Tumandar, Khan Bahadur Sardar Hasan Khan.

60. Influenza and small-pox epidemics broke out among the Bozdars during the year, but vaccinators were promptly sent to the spot and gave valuable assistance in checking the latter. The hill population suffered severely owing to the failure of the rains since 1917. There was great scarcity of grass and fodder in the hills and the condition of the cattle, sheep and goats was deplorable. *Takkavi* loan amounting to a sum of Rs. 11,500 was distributed as follows :—Bozdars (Rs. 7,000), Gurchanis (Rs. 3,000), Kasranis (Rs. 1,500). The hill population have hitherto managed to tide over their difficulties by the sale of their sheep and goats, but they have now nearly reached the end of their resources in this direction, as the fodder scarcity has lasted for close upon 4 years. If necessary, relief works can assist the human population, but only rain can save their herds, which represent their capital and their only means of facing future difficulties, as the crops grown even in a good year are not nearly sufficient to support the population.

61. In the year under report the title of '*Khan Bahadur*' was conferred upon Sardar Paind Khan, Bozdar Tumandar, and that of 'Khan Sahib' on Sardar Karim Dad Khan, Khetran, Tumandar of Vehoa. The powers of an Honorary Magistrate of the 3rd Class were granted to Khan Bahadur Sardar Paind Khan. For the new Punjab Council Khan Bahadur Sardar Jamal Khan, Leghari, was elected by the Tumandars, while Sardar Allan Khan, brother of the Drishak Chief, was elected by the Muhammadans of the district. The Hon'ble Nawab Sir Bahram Khan, Mazari, K.C.I.E., K.B.E., was nominated by Government as a member of the Council of State.

62. His Excellency the Governor of the Punjab visited the district in the month of November, and rewards amounting to Rs. 5,500 in cash and arms were presented by him to Bozdars and Kasranis in recognition of their services in resisting Pathan attacks in 1919.

9.—Condition of the people.

63. The year was again a healthy one, the mortality from cholera being the lowest during the last two decades, while plague was not so prevalent as in the preceding year. The death rate from small-pox, too, though higher than the last quinquennial average, was less than the figure for 1919.

The birth rate increased by two-and-a-half per cent. and equalled the average of the preceding five years, while births registered in the province numbered well over a quarter of a million more than deaths.

64. An average spring harvest was followed by an unusually weak monsoon, which rendered conditions unfavourable for the sowing of crops and resulted in a poor autumn harvest. The cost of foodstuffs rose in consequence, the prices of wheat, barley and gram all advanced by more than thirty per cent. and stocks of food grains were seriously diminished. Labour commanded still higher wages than before and was difficult to obtain.

CHAPTER II.

Administration of the Land.

Detailed information on the subjects dealt with in this Chapter will be found in the reports and statistical tables noted below :—

PROVINCIAL REPORTS.

Realisation of the Revenue—Revenue Surveys and Settlements.	Report on the Land Revenue Administration of the Punjab for the year ending 30th September 1920.

Professional Surveys.—General Report on the operations of the Survey of India for the year ending 30th September 1920.

Waste Lands and Government Estates.	1. Annual report on the Punjab Colonies for the year ending 30th September 1920. 2. Report on the Land Revenue Administration of the Punjab for the year ending 30th September 1920.

Wards' Estates.—Report on the Administration of Estates under the Court of Wards in the Punjab for the year ending 30th September 1920.

Revenue and Rent-paying Classes.—Report on the Land Revenue Administration of the Punjab for the year ending 30th September 1920.

PUBLICATIONS OF THE GOVERNMENT OF INDIA.

Agricultural Statistics of India, Volume I.

Area Totals—Table 1-J.	Transfers of Land—Table 6-H.
Classification of Area—Table 2-I.	
Incidence of Land Revenue—Table 5-I.	Changes in Boundaries—Appendix B.

10.—Realisation of the Revenue.

FIXED LAND REVENUE.

Demand and Collection.

65. The demand of fixed land revenue rose from Rs. 236·61 to Rs. 239·39 lakhs, of which 96·9 per cent. was collected. The revenue suspended was only Rs. 2·69 lakhs and the total under suspension was reduced from Rs. 21·82 lakhs at the beginning of the year to Rs. 13·29 lakhs only at its close. In the Gurgaon district practically a lakh had to be suspended owing to damage from floods.

Riverain action.

66. A feeble monsoon again resulted in only moderate floods; but this year the action of rivers, streams and torrents produced a net decrease in the cultivated area of 3,300 acres against an increase of 4,454 acres last year. The difference is attributable to the Sutlej which affected six districts and caused this year a net loss of 1,152 acres against a net gain last year of 6,600 acres; the Jhelum, on the other hand, caused a loss of only 479 acres or about one-fourth of the area carried away by it last year. The net loss to the fixed land revenue roll was Rs. 10,369 this year against Rs. 9,680 last year.

FLUCTUATING LAND REVENUE.

Demand and Collection.

67. The favourable agricultural conditions, combined with extensions of canal irrigation and the revision of the Dera Ghazi Khan Settlement led to an increase of Rs. 22·24 lakhs in the amount of fluctuating land revenue which was collected, the total sum being Rs. 155·62 lakhs. Of the total increase of Rs. 22·24 lakhs the Multan division alone contributed Rs. 13·89 lakhs, the Lahore division Rs. 4·09 lakhs and the Rawalpindi Division Rs. 3·49 lakhs.

OTHER LAND REVENUE.

Rents and Sales.

68. Collections of "other land revenue" increased by nearly Rs. 13 lakhs during the year, owing mainly to larger sales of proprietary rights in Government estates in the Canal Colonies. The uncollected balance at the close of the year was Rs. 1·06 lakhs, out of which the sum of Rs. 43,000 was due from Sheikhupura alone.

MISCELLANEOUS.

Coercive Processes.

69. As was to be expected from the improvement in agricultural conditions the collection of the land revenue demand was attended with less resort to coercive processes than in the preceding year, the result being that only 9,084 coercive processes were issued during the year, against 9,597 in the preceding year. The south-western portion of the province as usual accounted for a large proportion of the coercive processes. This is attributable partly to the habitual unpunctuality of the revenue-payers and the scattered nature of the population in that tract. In the Lahore district difficulty in the

collection of urban assessments is caused partly by the constant transfers of holdings.

Postal Process Service.

70. Some extension has been made in the system of serving through the post processes other than those for the recovery of land revenue, and where it has received a fair trial it appears to have been distinctly successful. In a few districts lack of postal facilities is said to be a stumbling block, but success or failure probably depends on the attention given to the experiment. So far it has not resulted in any reduction in the number of process-servers, but the other advantages attending this system make its more general adoption advisable.

Methods of payment.

71. The payment of land revenue and other dues through the post office by money-order and by means of insured currency notes is gradually increasing in popularity. Rupees 19·77 lakhs were paid by the former method and Rs. 7·91 lakhs by the latter. In the Rawalpindi district a remittance by currency notes was lost in the post and this misfortune has checked recourse to the practice. The Legislative Council passed a resolution in favour of the abolition of money-order fees in the case of remittances of land revenue and other Government dues but the Imperial Government declined to accept this proposal. In order to meet the convenience of revenue-payers Government has agreed to permit the payment of land revenue at the head-quarters of another district with the special permission of the Commissioner or Commissioners concerned.

Board of Economic Enquiry.

72. The Board of Economic Enquiry, whose inception was recorded in last year's report, has already embarked on some important investigations. Two joint sessions, under the chairmanship of the Financial Commissioner, were held during the year, at which the organisation and procedure of the urban and rural sections were determined and two subjects for investigation agreed on for each section. Rs. 1,800 were granted to the University to enable it to make an enquiry into the milk and *ghi* supply. Sub-committees were appointed (1) to consider the question of forming a Bureau of Statistics for the province; and (2) to arrange, in conjunction with the Public and University Libraries, for placing suitable literature at the disposal of the Board's members.

73. The urban section held three meetings and investigations were undertaken as to the family budgets of low-paid clerks and the family budgets and housing conditions of factory hands. For the former purpose 21 typical budgets were prepared by Mrs. Caleb and further data are being collected : for the latter suitable localities and types of employees were selected, the lines of the enquiry laid down, and some suitable investigators and supervisors appointed.

(i) Urban Section.

74. A sub-committee of the rural section recommended that investigation of the general economic conditions of agriculturists be undertaken in a group of villages in the Hoshiarpur Tahsil. Professor R. L. Bhalla, of the Forman Christian College, was appointed investigator and a draft questionnaire was drawn up for his use. A similar enquiry in the Ferozepore district will be undertaken in due course. This section also agreed to investigate the question of the size and fragmentation of holdings, and the Registrar of Co-operative Societies undertook the supervision of the enquiry which is proceeding. A sum of Rs. 15,000 was assigned to the Board in the budget for the year. Out of this sum Rs. 1,800 was, as noted above, granted to the University, and Rs. 5,000 were allotted to each branch. Out of this sum, the urban branch actually spent just over Rs. 2,000 and the rural branch about Rs. 650.

(ii) Rural Section.

11.—Professional Surveys.

75. The Punjab Riverain Survey party continued work on the Sutlej and Chenab rivers in connection with the Muzaffargarh, Multan and Montgomery Settlements. Three hundred and seventy-one linear and 429 square miles of main circuits and 2,650 linear and 491 square miles of minor traverses were executed, and 458 theodolite stations of the former and 11,590 of the latter in 143 villages were fixed in the area under river action. Corners of 266 squares were demarcated in 883 square miles with permanent markstones on both banks of the rivers Sutlej and Chenab to serve as a basis for the future survey and demarcation of village boundaries and fields in the beds of the rivers. The Settlement Officer, Multan, was supplied with 1,554 plotted and 474 boundary large scale mapping sheets and 34 four-inch sheets and two

Surveys of Riverain Areas.

index-sheets. Besides these, 395 boundary large scale mapping sheets were partly compiled and 222 miscellaneous traces were prepared and all the traverse stations marked during the year were plotted on 36 four-inch sheets. One thousand one hundred and fourteen stations were laid out and 189 linear miles traversed in five villages covering 20 square miles, in the course of a special survey of the suburban area of Multan, and 280 plotted mapping sheets were supplied to the Settlement Officer.

Town surveys, &c.

76. In Gujranwala 145 linear and three square miles of town traversing were done and 617 stations were laid out, also by the Punjab Riverain Survey party. The total expenditure of the party during the year was just over one lakh. Topographical survey operations were continued under No. 1 Party (Northern Circle) of the Survey of India, which surveyed an area of 4,957 square miles on the scale of 1 inch=1 mile, covering portions of Sirmur, Mandi, Suket and the Simla Hill States and of the Kangra and Hoshiarpur districts. An area of 441 square miles in the Gurgaon district was also surveyed by No. 2 Party (Northern Circle).

Rectangular surveys.

77. Rectangular survey operations in connection with the Sind-Sagar Canal and Colonization project were continued during the year by the Sind-Sagar party with the assistance of a revenue staff of naib-tahsildars, kanungos and patwaris deputed for the purpose. The party sub-divided 603—4,000-acre rectangles (partial and complete) into 22,714—100-acre rectangles over an area of 3,549·1 square miles in the Mianwali, Muzaffargarh and Jhang districts, leaving 120—4,000-acre rectangles (partial and complete) to be similarly sub-divided in the field season 1920-21.

Sub-rectangulation work.

78. A party of the revenue staff was formed during the year and placed under the charge of an extra assistant commissioner to sub-divide the 100-acre rectangles laid down by the Survey Department into ten-acre rectangles. This party laid out on the ground 57,180 ten-acre rectangles in the Mianwali district. Of these the corners of 6,710 ten-acre rectangles have been permanently marked with stones and of the others with wooden pegs pending the supply of stone pillars.

79. The following lines of precise levelling were run in the Punjab during the year:—

Revisionary and new levelling.

(*a*) Revisionary levelling from Ferozepore to Ludhiana which is part of the line from Ferozepore to Meerut, originally levelled in 1860 to 1862.

(*b*) New levelling from Amritsar to Ludhiana.

(*c*) New levelling in the Sind-Sagar Doab for the Irrigation Department (*i*) from near Leiah to Shorkot Road Railway Station and (*ii*) from near Khairanwala to near Wanbhachran Railway Station.

The total distance levelled, including branch lines, was about 410 miles, out of which in the line from Amritsar to Ludhiana about 21 miles lie through the territories of the Kapurthala State.

Boundary delimitation.

80. With effect from 1st November 1919, 129 villages, containing 115,202 acres, were excluded from the Sialkot district and added to the Gujranwala district. The whole of the Khangah Dogran and Sharakpur Tahsils of the Gujranwala district, comprising an area of 1,133,741 acres, with 91 villages transferred from Lahore and measuring 89,166 acres, were formed into the new district of Sheikhupura. Two boundary disputes between British villages of the Montgomery district and the estates lying within the territory of Bahawalpur State were decided during the year. The check of the Multan-Bahawalpur boundary was continued during the year and is now almost complete. Attempts to correlate the new maps of Dera Ghazi Khan with those of Bahawalpur State by means of direct communication between the Settlement Officer and the Mashir-i-Mal were unsuccessful: the matter is now under the consideration of the Commissioner.

12.—Revenue Surveys and Settlements.

Settlements begun and in progress.

81. There were five settlements in progress during the year. In the Sirsa Tahsil settlement operations began in October 1919. In Ambala before the new settlement terminated in March 1920, the new assessments in the Jagadhri

Tahsil and in the Morni hill tract of the Naraingarh Tahsil were announced and the internal distribution completed. Settlement operations opened in the Dipalpur and Pakpattan Tahsils of Montgomery in October 1919 and since then out of a total area of 1,529 square miles existing maps have been corrected or new maps made for 684 square miles included in 394 estates, leaving 491 estates still to be dealt with. The revision of records has been interfered with by interruptions such as the quinquennial cattle census, the preparation of electoral rolls, the general census and some dissatisfaction among patwaris on the subject of pay. In Lyallpur the record-of-rights of the 27 estates mentioned last year was completed.

Final Settlement Report.

82. No Final Settlement Report was submitted to Government during the year.

Settlements completed.

83. The Ambala Settlement was brought to a close and that of the Dera Ghazi Khan district was practically completed.

Re-settlements.

84. Forecast reports of the Jhang district (old villages) and of the tracts comprising the colony villages on the Jhang Branch and Bhangu Extensions of the Lower Chenab Canal in the Jhang District had to be called for during the year. Settlement operations in all of these tracts are due to begin in November 1921, provided that necessary funds are sanctioned by the Council. For the tract irrigated by the Lower Jhelum Canal in Shahpur, a further forecast report was called for. The term of this settlement was fixed at 10 years and is due to expire in *rabi* 1922.

13.—Land Records.

Patwaris.

85. Patwaris have maintained their record for good conduct and efficiency in the performance of their multifarious duties in connection with the land revenue records, cattle-enumeration and preparation for the census, and have helped to make the first general elections a success. Dismissals have decreased from 117 to 102 and there is a marked decline in the number of minor punishments. Patwaris as a class have shown little disposition towards agitation of a political nature, and any trouble that occurred was due to their desire for an improvement of pay. During the year under report they

received substantial concessions; in the matter of pay they gained in rates, and also in the frequency and convenience of its distribution; travelling allowance is now granted for all journeys by road; leave rules have been liberalised and satisfactory housing is in prospect; it is hoped too that the Government of India will sanction the establishment of a provident fund for them.

Kanungos.

86. In the case of kanungos, as of patwaris, the year brought substantial improvements in the matter of pay and allowances. The work of the kanungos during the year is favourably reported on, and attention is drawn to their abstention from agitation, on their own account, and their endeavours to minimise it among their subordinates, especially in Sialkot. The work of district kanungos appears on the whole to be satisfactory and to show signs of improvement, but still requires careful supervision, direction and control on the part of their superior officers. Ten kanungos were promoted to naib-tahsildarships and other superior posts, as against nine in the preceding year.

Accessibility of revenue records.

87. It was decided in May 1920 to extend experimentally to revenue courts in eight districts the scheme of appointing a special kanungo to make the contents of revenue records more readily accessible to litigants. The danger of courts using the special kanungo as a general referee on the contents of land records was met by instructing inspecting and appellate officers to watch for and restrain any such tendency, and to guard against any abuse of the convenience.

State of records.

88. The progress in measurement and record work in Multan was seriously impeded by the same causes as are mentioned in paragraph 81 above. The work, however, was kept up to date and in addition the grading of wells throughout the district and the preparation of files relating to fruit gardens in two tahsils, both operations being undertaken for purposes of assessment, were very thoroughly dealt with, so that little now remains to be done. The measurement and record work in the Multan, Shujabad and Lodhran Tahsils was inspected by the Director of Land Records, who reported favourably on the standard of work attained. The attestation of the new records of Jampur and Rajanpur Tahsils was finished and the records completed and filed. The hill torrent irrigation records of

the Dera Ghazi Khan, Jampur and Rajanpur Tahsils were prepared during the year, as well as the records-of-rights in date trees in Dera Ghazi Khan Tahsil. This completes the preparation of the various records for the district except that of the new town of Dera Ghazi Khan. The measurements of the new town have been finished, but the records are still to be prepared.

14.—Waste Lands and Government Estates.

The Lower Jhelum Colony.

89. Agricultural conditions in the Lower Jhelum Colony in the year under review were favourable. Harvests were good, prices and rents ruled high, and the rates obtained in sales and leases of agricultural land increased. In the towns also, the rents of houses and shops have risen and record prices have been obtained at auction of sites. Horse-breeding operations were successful, thanks mainly to the peasant breeder. The *sufedposh* grantee is reported to take little interest in horse-breeding, and only two out of the five stud farms are really satisfactory. Two thousand and forty acres were allotted during the year under report as compared with 1,443 acres last year. Out of this area, 650 acres were devoted to exchanges for grants made originally in the Lower Bari Doab Colony, and 814 acres to recruiting reward grants. The proposal to take over from the Military Department the lands to be released from camel browsing in Rakhs Dhrema and Risala, on the extension of irrigation in consequence of the remodelling of the Lower Jhelum Canal, is still under consideration. It has been ascertained that the 53rd Silladar Camel Corps, which is to be shifted from Rakhs Dhrema and Risala, cannot be accommodated in the neighbourhood of Sargodha, and that in any case it would be necessary to reserve one-third of these rakhs for camel browsing. The co-operative movement has spread in the colony and progress has been made with the provision of facilities for education. The state of communications is not satisfactory and it is hoped that the Communications Board may be able to effect some improvement now that its attention is to be drawn to the matter. An extra officer was appointed temporarily as Colony Assistant.

The Lower Bari Doab Colony.

90 The Lower Bari Doab Colony is at present the most interesting of all the Punjab colonies. The report of operations in the past year reveals the transformation of a desert into a

fertile country, where wheat and cotton are grown on something like scientific lines, novel experiments in agriculture, fruit-growing, cattle-rearing, horse-breeding and distribution of water are in progress, villages and towns are springing up, roads are being made and co-operative methods are spreading. The main feature in the history of the colony during the year has been the allotment of grants to military men selected under the orders of the Commander-in-Chief. About half the total area reserved for the Army has now been allotted and many new problems have arisen in consequence. That they will be dealt with in a spirit of sympathy and tactfulness is indicated by the Colonisation Officer's experiment of handing over to committees of Indian Officers the responsibility for reporting breaches of conditions, thus eliminating the opportunity for vexation and corruption which subordinate revenue officials enjoyed under the old system. The year was fairly successful from the agricultural point of view, although a hail-storm and late rains went some way to spoil what promised to be a bumper spring harvest. Prices were good and their effect is seen in the results of the auctions of land which fetched an average of Rs. 593 an acre. The Colonisation Officer is optimistic with regard to the chances of reclaiming inferior lands and special inducements are being offered to tenants with this object. Success has not yet been achieved with "bara" lands of which there is a very large area in the colony. The state of communications is not satisfactory and the Financial Commissioner has suggested that in future schemes of colonisation communications should form an integral part of the project. This recommendation will receive the careful consideration of Government. It is clear that a more speedy development of communications in the colonies is essential if their progress is not to be seriously impeded. The enormous area under temporary cultivation (381,016 acres in *kharif* 1919 and 442,215 acres in *kharif* 1920) indicates the special obstacles to permanent allotment in the Lower Bari Doab Colony, but it must now diminish rapidly with the arrival of the soldier grantees. When the latter were on field service such a system was inevitable and with all its faults has proved very useful. It has provided an outlet for excess canal water which otherwise would have run to waste, has brought an enormous amount of money to Government and has helped to produce good crops.

The Upper Chenab Colony.

91. The Upper Chenab Colony has made some progress but is far from having reached a satisfactory position. An inferior soil, with irrigation confined to the autumn harvest over a considerable portion of the colony, has militated against its development. The year under review, however, gave signs of some improvement. Wells are being constructed and the colonists, who hitherto used to return to their homes in the spring, are beginning to settle permanently on their grants. Orders have recently been passed which should lead to greatly increased efficiency in irrigation arrangements. Vexatious, though well-meant, restrictions on the irrigation of well lands have now been removed and the entire system has been simplified. The expectations formed of the utility of the two brick kilns at Kala Shah Kaku and Marh Bhagaon have been more than realised, especially in the case of the kiln at Kala Shah Kaku. Its contractors have faithfully carried out the conditions of their contract and have supplied bricks to 37 wells.

The Upper Jhelum Colony.

92. The report of the Upper Jhelum Canal states that the harvests were good. The construction of the market at Pindi Baha-ud-din is proceeding: road metalling, street pavements and drainage works are under construction. The request of the owners of the land taken up for the *mandi*, that they should be given land in exchange in lieu of cash, has been acceded to by Government.

15.—Wards' Estates.

Management.

93. Three estates were released and two brought under management during the year. The estate of Khan Bahadur Makhdum Hasan Bakhsh, which in 1904 was in debt to the extent of over Rs. $1\frac{3}{4}$ lakhs, was entirely freed from debt, while in the other two estates released from management not only have their debts been cleared off but their total assets show an enormous increase. Satisfactory progress was made generally in the repayment of debts, especially in the case of the Sidhowal and Arnauli estates, but the continued high cost of immovable property checked the purchase of land and house property.

Finance.

94. Nearly Rs. $1\frac{1}{2}$ lakhs were invested in Government securities, or more than double the figure for the preceding year. On the other

hand, cash balances lying idle in the Treasury exceeded Rs. 10 lakhs. The amount advanced to tenants and expended on permanent improvements fell from Rs. 1·67 lakhs to Rs. 1·08 lakhs, and the reports show that while the experience of the Court of Wards with tube wells has not been encouraging, various farms, such as the sheep farm at Jalalabad, have done well and provide a useful demonstration in new methods to agriculturists who have not the capital required for experiments. The total liabilities at the end of the year amounted to Rs. 9·29 lakhs, or only a little over 2 per cent. of the total assets.

Rents.

95. Recoverable rent in arrears amounted to Rs. 1·59 lakhs as against Rs. 2 lakhs in the previous year. These arrears were due to the slump in cotton prices and in some cases to negligence on the part of managers, the estates principally affected being those of Sher Shah, Arnauli, Sidhowal and Guru Harsahai. On the other hand, all the rents due to the Kote estate were realised and in the Mamdot estate, with a demand of over Rs. 2¼ lakhs, only a small fraction was left uncollected. The relations of the Court of Wards with its tenants were generally excellent.

Education.

96. No less than 22 wards and their relatives are now being educated at the Aitchison College, three are in the Government College, two at the preparatory school attached to Queen Mary's College, and eight in local or commercial institutions. Good reports are received of the Sardar of Kote, who is at Sandhurst, and of the ward of the Khandola estate who was sent to Edinburgh to study medicine in May 1920, and is now at St. Andrews.

16.—Revenue and Rent-paying Classes.

General.

97. The total area of the province, according to the entries in the latest revenue records, is 56,456,000 acres or 187,000 acres more than that of 1918-19. The increase occurs principally in Multan, Lyallpur, Kangra, Montgomery, Ferozepore and Gujrat. The cultivated area this year has increased by 11,000 acres on the area of 29,049 million acres last year. The increase occurred in the districts of Gujrat, Shahpur, Mianwali, Lyallpur, Jhang, Multan, and Dera Ghazi Khan

and is due partly to canal extensions and partly to increased cultivation of the Sind-Sagar Thal. The cultivated area under mortgage has decreased by more than 62,000 acres, compared with an increase of 36,000 acres last year. The cultivated area under mortgage is 10·8 per cent. of the total cultivated area, as against 10·9 last year.

Loans under the Land Improvements Loans Act, XIX of 1883.

98. The amount advanced for land improvements was Rs. 1·87 lakhs, which is slightly more than last year. This sum was spent mainly on the construction of wells, of which 288 were made with the aid of loans from Government, while 2,526, or nearly nine times as many, were built without Government assistance. The punctuality with which Government loans are realised militates against their popularity, but considering the low rates of interest charged—6¼ per cent.—and the fact that instalments are suspended in bad years, it is fairly clear that the financing of land improvements from private sources, including co-operative banks, presents little difficulty to the Punjab agriculturists.

Loans under the Agriculturists Loans Act, XII of 1884.

99. As was to be expected from the improved agricultural conditions advances under the Agriculturists Loans Act fell from Rs. 8·9 lakhs in 1918-19 to Rs. 3·1 lakhs in the year reviewed. Little progress was, however, made with the recovery of outstanding debts, and the result of the year's working under this Act was a loss of Rs. 12,307 to Government. This is partly accounted for by the fact that the districts which were most severely affected by the drought of the previous year had not yet recovered. This view is borne out by the figures for demand for loans, which were heaviest in Gurgaon (Rs. 56,000), Attock (Rs. 41,200), Dera Ghazi Khan (Rs. 40,980), Muzaffargarh (Rs. 29,950), Multan (Rs. 24,310), Jhelum (Rs. 25,650), Sialkot (Rs. 21,360), Montgomery (Rs. 21,110), and Mianwali (Rs. 20,985). In Sialkot the purchase of a superior type of bullock was encouraged by the distribution of loans in the villages.

Transfers.

100. The cultivated area (ownership) sold during the year was 142,823 acres, a slight increase over that sold in the previous year. Sales of uncultivated land (ownership) have also increased from 1,796 acres to 80,226 acres. The districts in which the

largest areas of cultivated land were sold this year were Hissar, Ferozepore, Attock, Ambala, Rohtak, Karnal and all the districts of Multan division. In Hissar the increase was due to the sale to the tenants of certain estates owned by absentee proprietors. In Muzaffargarh the prospect of the Sind-Sagar Canal continues to stimulate purchase by agriculturists of outside districts, not disqualified under the Alienation of Land Act. The local officers, on the whole, regard the advent of such immigrants as beneficial. The total cultivated (ownership) area reported as redeemed (including areas redeemed but re-mortgaged) during the year was 349,398 acres against 261,920 acres in the preceding year and the mortgage debt discharged was Rs. 422·56 lakhs against Rs 216·04 lakhs in 1918-19. All districts, except seven, share in the increase, especially Ferozepore, Gujrat, Ludhiana, Lahore and Amritsar. Ludhiana and Amritsar, like Ferozepore, are reported to favour redemptions at the cost of sale, or more profitable re-mortgage of other areas. In Gujrat, earnings from military service are said to be an important factor. The figures of redemption for the year are, so far as they go, satisfactory and indicate a further return to the pre-war standard of redemption. In the twelve districts for which figures of area are reported more than 8,000 acres were redeemed and opinions are unanimous in describing the Redemption of Land Act as popular and beneficial. The cultivated area (ownership) mortgaged during the year was 260,811 acres against 210,543 acres in the preceding year. At the end of the year the total cultivated area under usufructuary mortgage was 3,116,749 acres or 62,473 acres less than the total area under mortgage at the close of 1918-19. In contrast to these figures the mortgage debt redeemed during the year amounted to Rs. 422·56 lakhs, whereas the mortgage debt freshly incurred by new mortgages or by re-mortgages of redeemed areas amounted to Rs. 488·40 lakhs. The increase in total mortgage debt secured in agricultural land has thus been Rs. 66 lakhs as compared with Rs. 95 lakhs, the figure for the preceding year. The broad conclusion is that while the total area under usufructuary mortgage in the province is diminishing, the total debt secured shows a progressive increase. The area (ownership) transferred by gifts was 84,000 acres and, as before, is accounted for mainly by transfers for religious and charitable purposes, but it is interesting to notice that more than half the annual increase

is due to two cases in the Shahpur district, in one of which the rival claimants to a vacant zaildari obtained gifts of land from their supporters, with a view to strengthening their social status, while in the other case, a father gave land to his son with the object of enhancing the son's chances in the Council elections. The area transferred by exchanges was 40,000 acres.

Value of land.

101. The average recorded price of cultivated land has risen from Rs. 184 per acre in 1918-19 to Rs. 275 in the year under report, the highest figure on record. The rise with a few exceptions is general and is due to the continued high prices of agricultural produce. In Sheikhupura the rates are somewhat inflated by the price paid for the valuable Warburton Estate, which included house property. In Multan, sales of colony land by auction forced up prices. Similarly, in the few districts in which a fall in the price of land is reported special factors came into play. In Hissar, large areas were sold by absentee landlords. In Muzaffargarh, the land sold was of inferior quality. The sale price for the province as a whole represents 199 years' purchase of the land revenue assessed, as against 127 years' in the previous year. The mortgage value of land, the ownership of which was mortgaged during the year, was Rs. 488·40 lakhs and represents 131 times the land revenue assessment of the land, against 97 times in the previous year. The average mortgage money per acre on the whole area mortgaged was Rs. 163.

Land Alienation Act.

102. No new tribe was notified under the Land Alienation Act. Agricultural tribes gained by purchase a net area of 26,000 acres against a gain of 41,000 acres in the previous year, but lost by mortgage and redemption taken together 43,000 acres against a loss of 49,600 acres in the previous year. Sales by agricultural tribes show an increase from 154,000 acres to 166,000 acres; sales to them having decreased from 195,000 acres to 191,968 acres. Sales to "others" have also increased from 37,000 to 51,000 acres. The Act continues to work well and is highly appreciated by the tribes protected by it.

Rent-paying classes.

103. The number of suits brought for enhancement of rent was 878, of which 706 were successful. Ambala and Jullundur districts, which have recently been settled, accounted for more than

half the total. None of the 12 suits for reduction of rent succeeded. There were 15 decrees for ejectment of occupancy tenants under section 39 of the Tenancy Act as against 11 in the preceding year. The total number of ejectments of occupancy tenants actually made was 52. In the case of tenants-at-will the total number of applications for service of notice of ejectment, of notices of ejectment issued, and of ejectments ordered is nearly double the number reported last year, the aggregate number of cases having risen from 2,838 to 4,910. The increase is due to temporary and, to some extent, accidental causes, the high value of agricultural produce naturally tempting landlords to enhance rents.

MISCELLANEOUS.

Punjab Land Preservation (Chos) Act.

104. With regard to the reclamation of the Chos and re-afforestation of the Siwaliks, the most notable feature of the year has been the attempt to induce the people of the villages mainly affected to adopt the remedial measures prescribed in the Chos Act voluntarily rather than under the orders of Government. This policy is now being further extended under the advice of Mr. Courthope, Conservator of Forests, whose experience of similar work in the United Provinces is likely to prove of great value in the Punjab. That the Chos Act has produced benefit to the people is apparent from the fact that in the villages where its more stringent provisions are in force the supply of fodder has been more abundant than elsewhere, and the villagers have benefited by its sale. Its working, which has formed the subject of some discussion in the Legislative Council, is now to be the subject of a special enquiry. In the Ambala district the year under report was largely occupied with preliminary investigation, assessment of compensation and measurements for procedure under section 5 of the Act, proceedings under section 4 having already been finished. In Hoshiarpur the 9 villages to which section 5 applies have greatly benefited thereby. A scheme was submitted by the Deputy Commissioner, Hoshiarpur, during the year in which he proposed to extend to the remaining 126 villages, already notified under section 4, the provisions of section 5 of the Act. The Financial Commissioner, however, was opposed to the indiscriminate application of the provisions of section 5 to the whole of the villages on account of the prohibitive expense involved and of the resentment likely to be aroused by such

action. He agreed to the application of section 5 to 11 villages previously designated for this purpose on expert advice and to consider proposals for a limited number of other villages. In 10 villages situate in the Maili Cho (Garhshankar Tahsil) action was taken during the year on the lines proposed by the late Deputy Commissioner of the district for the protection of land and for straightening the Cho channel (vested in Government); in pursuance of this plan the *zamindars* constructed *kacha* bunds about 6,300 feet long. Rs. 670 were distributed among the *zamindars* in the district from the Government grant-in-aid of works in progress. A good stock of trees was planted by the *zamindars* during the year, but unfortunately the trees succumbed to drought. Efforts are being made to give effect to the scheme of consolidation of holdings advocated by the co-operative societies in the Chos areas as well as in other tracts.

Descent of Jagirs Act.

105. The number of *jagirs* notified under the Act remains at 149.

CHAPTER III.

Protection.

Detailed information on the subjects dealt with in this chapter will be found in the reports and statistical tables noted below :—

PROVINCIAL REPORTS.

Police.—(1) Report on the Police Administration of the Punjab for the year 1920.

(2) Report on the working of the Criminal Tribes Act for the year 1920.

(3) Report of the Chemical Examiner to Government, Punjab, for the year 1920.

Criminal Justice.—Report on the Administration of Criminal Justice in the Punjab and its Dependencies during the year 1920.

Prisons.—Report on the Administration of the Jails in the Punjab for the year 1920.

Civil Justice.—Report on the Administration of Civil Justice in the Punjab and its Dependencies during the year 1920.

Registration.—Report on the Administration of the Registration Department of the Punjab for the year 1920.

Legal affairs of Government.—Report on the Administration of Legal Affairs of the Government of the Punjab for the year 1920.

Local Boards Administration.—Report on the Administration and Accounts of the District Boards in the Punjab for the year 1920-21.

Municipal Administration.—Report on the working of Municipalities in the Punjab during the year 1920-21.

PUBLICATIONS OF THE GOVERNMENT OF INDIA.

Statistical Abstract for British India, Volume IV, Administrative and Judicial (including area, population and local funds).

17.—Legislating Authority from 1st April to 31st December 1920.

106. No changes took place amongst the members of the Council.

18.—Course of Legislation from 1st April to 31st December 1920.

Meetings.

107. Only one meeting was held, at Government House, Lahore, on the 6th April 1920.

Bills.

108. No Bill was introduced or passed in Council.

109. Three resolutions were moved regarding—

Resolutions.

(1) increase of remuneration of sub-registrars,

(2) a thirty per cent. increase in the salaries of Government servants drawing Rs. 30 per mensem or under,

(3) making provision in the next census for the preparation of tables of boys and girls of school-going age in connection with primary education.

Of these Nos. (1) and (2) were lost and (3) was carried.

110. Forty questions were put and answered.

Questions.

111. The budget for 1920-21 was introduced.

Budget.

India Acts.

112. No Acts particularly affecting the Punjab were passed by the Imperial Legislative Council during the year.

19.—Police.

Increase in cognizable cases.

113. A further, though slight, increase in the total number of true cognizable offences of all kinds dealt with by the Police has again occurred during the year under report (38,544 cases against 38,002 in 1919). Omitting petty crime the advance was approximately two per cent.

Causes of increased crime.

114. Several of the adverse circumstances which accounted for a considerable rise in crime last year were unfortunately in existence in 1920, but it is open to doubt whether the political situation and the non-cooperation movement produced any marked effects outside the towns, though they may have conduced slightly to the increase in some areas. It is noticeable that the increase was mainly confined to districts of the Central Range and was due to economic factors, general unrest and weakening of regard for authority. In the Colony districts in this area, where social and economic conditions have been changed and the very composition of the population altered by the new settle-

ments, the rapid accrual of wealth and the enterprising character of the population have probably been contributing causes. The present figures still fall short of those of pre-war years not only in the total of all classes of cognizable crime but also in the aggregate numbers of *dakaitis*, burglaries and cattle thefts.

Relations with the public.

115. In the absence of organised disturbances such as those which happened in 1919, co-operation of the public with the police was not put to such a heavy strain and rewards were less freely granted, the sum distributed (about Rs. 20,000) being roughly only half of what was bestowed in the preceding year. Amongst recipients of such rewards were 140 zaildars, 431 lambardars and 392 chaukidars. At the close of the year ten punitive police posts were in existence.

Murders.

116. No special reason has been assigned for the rise in the number of murders from 509 to 550, the highest figure in the quinquennium. Lahore, Attock, Rawalpindi, Dera Ghazi Khan and Ferozepore headed the list in this respect, while the districts of the Central Range principally accounted for the increase of 41 cases. The most noteworthy cases were those (*i*) of a deserter who by the throwing of a hand-grenade killed a lambardar and his son and later returned to shoot dead, in broad daylight, one of the witnesses to his previous crime; (*ii*) of armed attacks upon two railway guards travelling in their trains through the Attock district; and (*iii*) of the shooting of the driver of a mail tonga running between Lawrencepur and Hazro.

Dakaitis.

117. Only twice in the last ten years has the number of true cases of *dakaiti* been as low as the total (80) reported in 1920. The most striking feature in this class of crime was the number of offences committed by gangs from across the border, who owing to famine in their own districts resorted to raiding the districts of Attock and Mianwali. Measures were taken last year to deal with raiders into the Isa Khel tahsil of Attock by the strengthening of the police force, and a further increase has recently been sanctioned. Arrangements have also recently been made for the extension of telephones to link up Isa Khel with the police posts of the neighbouring frontier districts, while in the Bannu district a chain of posts has been established with the object of

intercepting raiders on their return journey. Fire-arms have been more frequently employed by *dakaits* than in former years, but in several cases the villagers boldly turned out and joined the police in pursuing their assailants.

Burglaries and thefts.

118. True cases of burglary rose from 13,239 to 14,179, representing an increase of a little over 7 per cent., while ordinary theft cases declined from 6,325 to 5,962, or 6 per cent. The high prices obtained for good plough cattle led to an increased number of cattle thefts, especially in the riverain area between Amritsar and Gandasinghwala in the Lahore district.

Results of police work.

119. The percentage of cases convicted to true cases reported, of cases convicted to cases tried and of persons convicted to persons tried (28, 70 and 54 respectively) show a falling off from the figures for the previous year (31, 72 and 57 respectively). It is always difficult to assign definite reasons for variations of this nature, but possibly the under-staffing of the police and of the criminal courts, resulting as it does in great pressure of work, and also the inadequacy of the prosecuting staff in the conduct of ordinary criminal trials, may be held to be partly responsible for the comparatively unsuccessful working exhibited in the above figures.

Preventive measures.

120. The number of persons called upon to furnish security for bad livelihood shows a small decrease of 104 persons from 2,230 to 2,126. As in the last year security was more freely taken in the Western and Central Ranges than in the Eastern Range. In some areas a difficulty is experienced in inducing persons to give evidence against known bad characters probably owing to fear of reprisal at the hands of the criminal, a fear that may not be altogether unfounded. The number of persons restricted under the Habitual Offenders' Act rose from 1,471 to 2,048. The Act is said to be proving useful in dealing with cattle thieves, althoug hadmittedly it has not had the effect of reducing the total number of cattle thefts hitherto.

Criminal Investigation Department.

121. The work done in the Criminal Investigation Department was of an unusually onerous character. The attitude of many of the released Martial Law convicts was unsatisfactory and returned Sikh emigrants again began to take part in anti-

Government agitation. The North-Western Railway strike, the Hijrat movement and the adoption of non-cooperation by the Sikh League in October threw a heavy burden on the department. As a further indication of its activities, it is worthy of notice that records were taken of over 1,400 public political meetings, 375 of which were attended by officers of the department to report on the speeches delivered. This latter duty is, unfortunately, becoming singularly unpleasant because officers are constantly subjected to vilification and at times even threatened with personal violence. Able investigation work was done in the Gujranwala bomb case, in which bombs and fire-arms were found to have been brought into India from the Chamarkhand colony of Hindustani fanatics with the intention of committing outrages on Europeans. With the help of this department, too, a band of *dakaits*, who were implicated in more than sixty cases of *dakaiti*, was run to ground, and eighteen accused were sentenced to terms ranging from 3 to 25 years' imprisonment.

Finger print bureau.

122. The total number of finger print slips on record rose by 14,573 to 289,287. Search slips received by the bureau were about 2,000 less than in the preceding year, the percentage of cases traced being slightly higher. Of the 5,626 persons traced by the bureau, 5,155 were old convicts. Expert evidence was given in 1,604 cases, as compared with 1,339 in 1919 and 1,058 in 1918.

Railway police.

123. This department investigated 3,401 cognizable cases as against 2,916 in the previous year. It is reported that part of the rise in railway crime is due to the fact that the attention of the ordinary criminal is being increasingly diverted towards the rich and easy plunder of the railway line, and greater skill and daring are being shown in carrying out thefts in running trains and goods wagons. It is hoped that the measures recently recommended by the Railway Commission will lead to a decrease in this class of crime.

General.

124. Revised rates of pay for the non-gazetted ranks of the force were introduced with effect from the 1st April 1920, and this revision and the extra duty allowances sanctioned for upper subordinates resulted in an increased expenditure of Rs. 16·47 lakhs. A similar revision of pay was effected in the clerical

establishment of administrative offices. The improved prospects in the service were reflected in the reduction of resignations by 18 per cent. as compared with the preceding year, and recruits were readily found in all the districts of the province except Simla. Six police officers received the King's Police Medal and nine were granted honorary titles, while three officers and 174 men were dismissed from the force during the year.

CRIMINAL TRIBES.

125. The year under review saw a considerable change of policy in the administration of the Punjab criminal tribes. More attention was paid to improving the conditions of the present inmates in the settlements than to the drafting in of fresh gangs. Necessaries of life were supplied to indigent inmates and the co-operation of the Medical Department was secured in providing medical aid where needed. Transfers to industrial settlements were practically limited to habituals, the remaining inmates not so classified being gradually released. The evil consequences following the transfer of a bread-winner to a settlement and the hardship thus entailed upon his family were overcome by an amendment of the rules, which now permit the registration and transfer of whole families. Efforts were made to secure for the inmates of the industrial settlements as congenial work as possible. The importance of the economic factor in the reformation of these tribes was realised, and steps were taken to prevent "sweating" and to raise wages where they were below the market rates.

General.

126. The amendment of the rules noticed above and the addition of youths who in the course of the year became liable to registration brought the total of fresh registrations up to 2,508. Owing to cancellation, deaths and transfers, the total number of registered members outside settlements fell during the year from 23,310 to 15,709. This, however, did not affect the total population of the criminal tribes to any considerable degree. The population within the settlements rose from 3,560 male adults, with a total population of 3,708 souls at the end of the year 1919, to 3,620 male adults, with a total population of 8,594.

Number on registers.

Revision of classification.

127. As a result of the revision of the classification of registered members of the notified criminal tribes, 8,597 registered members have been exempted from the operations of the Criminal Tribes Act out of a total of 21,480, and 2,278 have been marked for lenient treatment under section 10-A of the Act. Of the latter class, however, only 359 have been notified so far and in view of the nominal relief from restrictions which under the present rules such a notification affords, arrangements are being made to remove from the registers the names of such men as are eligible for total exemption under rule 24 of the rules framed under section 20 of Act 3 of 1911, and to notify only the rest under section 10-A.

General results.

128. The stringent control now exercised and the fear of the possibility of transfer to a settlement have had a very salutary effect on criminal tribesmen who used to go about begging and stealing. Most of them have now taken to a fixed occupation, mostly agricultural. Under the changed conditions even the wandering tribes are realising the futility of their former vagabond existence and are settling in villages and building houses for themselves.

Education.

129. Ordinary schools are provided in all settlements for boys as well as girls, some of whom have shown remarkable progress. The continuance of systematic education should prove beneficial in weaning the younger generation from their hereditary pursuits, but the employment of unqualified teachers means that the best results are not obtained. With a view to improving technical education a weaving school has been opened at Palampur; the reformatory factory at Amritsar has been extended so as to provide training classes for a larger number of youths, and carpentry and shoe-making industries have also been started in two settlements of the Sialkot District.

Settlements.

130. Of the 13 industrial settlements, five were discontinued because of unfavourable conditions and five new ones were established at other localities during the year. The Dhariwal settlement was closed on 15th April. Regular work was secured for all inmates of the industrial settlements and in most cases the wages earned sufficed for the subsistence of the families. The transfer of families reduced the number of escapes. In

addition to the three old and seven new agricultural settlements, which existed at the close of the previous year, one old and three new agricultural settlements were established during the year. Agricultural conditions during the year 1920 were generally unfavourable and in some cases the earnings of the tenants had to be supplemented by recoverable advances, but notwithstanding this the transformation which was wrought in the habits and modes of living of the nomads settled on land was remarkable. Almost all the religious societies of the province have been associated in this philanthropic work and receive subsidies from Government to meet their expenses. The Salvation Army has during the year been handicapped by lack of suitable officers, but thanks to the keen interest evinced by Commissioner Bullard the work in the settlements under his charge has been progressing steadily. Of the Indian societies the Ahmadiyya Anjuman-Ishait-i-Islam, the Dev Samaj, the Arya Samaj, the Sanatan Dharm Sabha and the Chief Khalsa Dewan have done equally well during the year.

Convictions.

131. The criminality of the notified criminal tribes so far as it is evidenced by their convictions has, owing to stringent control, decreased considerably, for notwithstanding prevailing economic conditions the percentage of total convictions comes to 2·3 as compared with 3·1 of 1919 and 10·8 before 1917, the year in which operations were started under the Criminal Tribes Act.

Financial.

132. Against a total allotment of Rs. 2½ lakhs for the financial year 1920-21, the total expenditure amounted to Rs. 2·35 lakhs, Rs. 61,000 initial and the rest recurring. The sale of products from the Amritsar factory and the lease of unallotted land in the agricultural settlements yielded an income of about Rs. 36,000.

Co-operation of Native States.

133. Almost all the Native States adjoining the province have adopted measures on the lines of the Criminal Tribes Act for the registration and restriction of tribesmen and almost all the States, except the Nabha Darbar, have agreed to a proposal made during the Conference of Native States held at Lahore on 1st and 2nd November 1917 for the exchange of tribesmen wanted for non-extraditable offences. This agreement obviates the necessity of lengthy correspondence and helps to expedite proceedings. Owing to its close proximity

to the Central and Eastern Punjab districts, a similar arrangement is desirable with the Nabha Darbar. In all other necessary measures the Native States have extended whole-hearted co-operation.

Recruitment.

134. The total number of men who enlisted during the year is 26. Of these five enlisted as combatants and the rest as non-combatants. Owing to the demobilisation of several units the total number serving in the Army fell from 1,541 during the year 1919 to 1,142 in the end of 1920. The interest in military service awakened during the war still continues and from many places voluntary offers received for military service had to be refused for want of any immediate necessity.

CHEMICAL EXAMINER.

Laboratory.

135 In July 1920 the laboratory was moved from its former situation in Anarkali to a new building near the Jail Road. When the approaches have been completed and the surrounding waste land has been properly levelled, the new laboratory will be one of the finest of its kind in India.

General and medico-legal cases.

136. The number of cases examined during the year was 965, as compared with 1,096 in 1919. Except in the cases of cattle-poisoning the decrease was general. Opium was again the most prominent factor in human poisoning, followed by arsenic, mercury and alcohol, while in a few cases *bhang*, *datura* and strychnine were detected. In 35 detected cases of animal-poisoning arsenic was employed in 27, the remainder being divided between strychnine, mercuric chloride and *rati*. During the year 213 articles were examined for purity and quality.

20.—Criminal Justice.

General.

137. There was a slight drop in the number of offences reported, from 189,762 to 187,739, while the number of true cases was about 60 per cent. of the total number reported. The decrease, which is somewhat unexpected, is attributed to a tendency to refer disputes to *panchayats* for settlement; possibly the voluntary *chaukidara* and *thikripahra* systems obtaining respectively in towns and villages may have been contributing causes.

Cases brought to trial.

138. The number of cases brought to trial (those disposed of under sections 247 and 259 of the Criminal Procedure Code being excluded) was 110,197, involving 262,996 persons, as compared with 112,365 cases and 264,306 persons in the preceding year.

Disposal of cases.

139. The criminal cases disposed of during the year fell from 184,566 to 180,963, of which 93·4 per cent. were original cases. The number of persons involved in original cases decreased from 248,872 to 243,843. It is satisfactory to note that district magistrates disposed of 142 cases, against 90 in 1919, in virtue of enhanced powers under section 30 of the Criminal Procedure Code, but the High Court thinks that the time has come for trying the experiment of relieving district magistrates of all magisterial duties excepting those performed under the preventive sections of the Code.

Persons brought to trial and convicted under the Indian Penal Code.

140. Reported offences under the Indian Penal Code decreased from 131,791 to 130,185, while cases admitted to have occurred, including offences reported during and pending from the preceding year, fell from 79,218 to 77,028. Of 168,277 persons brought to trial under the Code only 12·62 per cent. were convicted, or nearly 2 per cent. less than in 1919. The police prosecuted 24,180 persons and obtained convictions in 54·3 per cent. of that number (8 per cent. less than in 1919), while the percentage of convictions of persons prosecuted on private complaints was only 5·6.

Serious forms of crime.

141. Of the 1,748 offences affecting life reported during the year and remaining pending from the previous year, 1,250 were brought to trial and 1,236 classified as true. Out of this total, 575 were cases of murder or dacoity and murder, 105 of attempted murder and 248 of culpable homicide. In paragraph 116 above, the police figure is shown as 550 (not 575), the explanation of the discrepancy being that the police classify true cases by reference to offences committed, while criminal courts do so by reference to individuals charged with the commission of an offence.

Murders.

142. The number of persons brought to trial for murder (sections 302 and 396, Indian Penal Code) was 1,330, of whom 443 were convicted. One hundred and sixty-two death sentences were passed, but

the number of persons affected was 158, because one convict was twice, and another thrice, sentenced to death in different cases. The High Court actually disposed of 143 persons sentenced to death, confirming the sentence in 60·8 per cent., commuting to transportation for life in 9·8 per cent., convicting of lesser offences in 3·5 per cent. and acquitting in 25·9 per cent. The corresponding percentages in 1919 were roughly 69, 8, 5 and 17. Two death sentences were passed by the High Court in virtue of its powers of enhancement of sentence. The Governor commuted the death sentence in four cases, three to transportation for life and one to ten years' imprisonment. The Governor-General in Council interfered in four other cases, reducing three sentences to transportation for life and one to imprisonment for seven years.

Matrimonial cases.

143. It is to be regretted that there has been a steady rise in the commission of matrimonial offences. In 1918 the number was 7,417, in 1919 it was 9,820, and last year the total reached 10,658, or a percentage increase of 43·7 in two years. It is noticeable that the application of the marriage registration system to some districts has failed to reduce this type of crime and the High Court emphasises the necessity for placing the system on a proper legal basis instead of leaving it to the idiosyncracies of local bodies.

Punishments.

144. The following table shows the punishments inflicted in 1919 and 1920 :—

	NUMBER OF PERSONS SENTENCED TO				
—	Death.	Transportation.	Imprisonment.	Fine.	Whipping.
1919	150	181	16,267	36,863	763
1920	87	235	14,344	34,279	664
Increase or decrease ...	– 63	+ 54	–1,923	–2,584	–99

Habitual Offenders' Act.

145. Offences reported during the year under the Habitual Offenders' Act numbered 518. Out of 519 cases, involving 525 persons, movements were restricted in 460 cases, 462 persons being affected by the orders.

Miscellaneous.

146. Several proposals for minor reforms in the administration of criminal justice have come under notice during the year. One concerns the payment of witnesses and assessors by the sessions judge himself at the conclusion of criminal trials, in place of the present system under which disbursement is made by the district magistrate on the production of certificates issued by the sessions judge. Another relates to the practice, which already exists in one district, of the police giving notice to the magistrate that an investigation is nearing completion and that the *chalan* and prosecution witnesses will probably be presented on a particular day, so that the magistrate may arrange to hear the case as soon as it is brought before him. The High Court is now considering the advisability of extending this practice throughout the province. Finally, the Judges press for the abolition of the hybrid language which characterises the police diary.

21.—Prisons.

Institutions.

147. The Camp Jail at Dhariwal was finally closed on the 20th April 1920 and the inmates returned to the Lahore Borstal Institution. During the period of its existence, from February 1917 onwards, a sum of Rs. 93 thousand was credited to Government and ten thousand rupees to the private property accounts of the youths employed. The district jails at Jhelum, Mianwali, Rohtak and Jhang, which had been reduced to sub-jails owing to war emergencies, were re-opened. A fifth central jail is more than ever required to relieve overcrowding, especially in view of the recommendation made by the Indian Jails Committee that transportation prisoners should be returned from the Andamans. A site has been selected at Madhopur in the Gurdaspur district for the construction of an especially equipped jail for the treatment of prisoners suffering from tuberculosis. Including the accommodation provided for hospital, female, juvenile and civil prisoners, the total accommodation available is for 14,687 prisoners. This, however, is insufficient to relieve the congestion at present prevailing.

Daily average population.

148. The daily average population was 13,998 against 15,231 during 1919. The disturbances of 1919 were responsible for the great increase in that year.

Admissions.

149. The number of convicts received during the year amounted to 15,996 (against 19,236 in 1919) of whom 930 were received by transfer from other provinces, mostly from the North-West Frontier Province. Two hundred and fifty-eight prisoners were admitted into jail in default of payment of fine, out of whom 77 served the full sentence awarded in lieu of payment of fine. Deportations increased from 62 to 178 and executions fell from 162 to 80.

Releases by order of Government.

150. Fifteen prisoners were released by Government on medical grounds. On other grounds 773 prisoners were released, chiefly as the outcome of the Royal Proclamation in connection with Martial Law prisoners.

Juveniles and juvenile adults.

151. During the year 60 juveniles were convicted, of whom 24 were 15 years of age and, therefore, under the Reformatory Schools Act, were sent to jail. The name "Borstal Institution" has been substituted for "Borstal Jail" and "inmate" for "prisoner"; while an increase in the staff, both executive and technical, the introduction of special grades of three degrees for the inmates, which carry with them certain privileges, and the opening of a library for the use of the inmates are special features in the year's progress. Moreover, Government has ruled that detention in a Borstal Institution is not to debar a youth from Government service. The population of the Lahore Borstal Institution is over 1,400, a number far too large to be adequately dealt with in that institution. One hundred and eighty-two inmates were conditionally released as compared with three in 1919. A small compositors' section was opened and ambulance classes were continued. Land for a model agricultural farm has been acquired and is being levelled.

Unconvicted prisoners.

152. The number of under-trial prisoners received during 1920 was 22,851, giving a daily average of 1,820 against 27,306 admissions, with a daily average of 2,049 in the preceding year.

Escapes and imposition of fetters.

153. The number of escapes fell from 13 to 7. Only two prisoners escaped from inside a jail, all the others from outside gangs. The year shows an increase (526 against 477) in the imposition of fetters for safe custody.

Staff.

154. One assistant jailor was sent for trial on charges of bribery and corruption, for which he was convicted. The Jailor (now Officiating Superintendent) of the Borstal Institution, Sardar Sahib Bhai Hukam Singh, was granted the title of Sardar Bahadur in recognition of services rendered in connection with that institution. The pay of the staff and warder guard was increased.

Conduct and discipline.

155. The number of prison offences fell from 14,851 to 13,200. A serious riot occurred in the Lahore Central Jail during the year between Sikh and Punjabi prisoners on one hand and Pathans on the other, the outcome of friction of long standing between the various parties. A gang of 47 prisoners under transfer from Montgomery to Multan Central Jail caused trouble during transit from the Multan City Station to the jail and help had to be obtained from the jail. On arrival at the jail they were admitted within the main gates and were being searched, when one of the men struck the gate-keeper. A general *mêlée* ensued, which was with difficulty subdued. Offences relating to work decreased from 9,181 to 7,066 and those relating to prohibited articles fell from 1,915 to 1,641. The total number of punishments decreased from 14,885 to 13,235, though the number of whippings increased from 11 to 37.

Expenditure.

156. The expenditure on guarding and maintenance of prisoners increased from Rs. 17·14 lakhs to Rs. 18·27 lakhs and the cost per head from Rs. 113-9-6 to Rs. 132-3-11, the principal cause being high prices prevailing in the Punjab. An increase of expenditure under the head "Establishment" from Rs. 4·42 lakhs to Rs. 4·67 lakhs was due to the re-opening of four district jails and the grant of temporary allowances to the staff. Expenditure on buildings decreased from Rs. 1·42 lakhs to Rs. 1·38 lakhs.

Employment of prisoners.

157. The daily average number of convicts sentenced to labour fell from 12,860 to 11,858. Various Government departments, such as the Khewra salt depôt, agricultural farms at

Lyallpur and Gurdaspur, the arsenals at Ferozepore and Rawalpindi and the Woollen Mills at Dhariwal absorbed a certain amount of jail labour. Total cash profits increased from Rs. 4·02 lakhs to Rs. 4·21 lakhs. The chief increase in profits is ascribed to the disposal of large stocks of printed forms, the sale of castor oil, and the recoveries of large outstandings from the previous year. Cash earnings per head of those sentenced to labour increased from Rs. 31-4-0 to Rs. 35-8-0 and the gross profits from Rs. 2·61 lakhs to Rs. 3·69 lakhs.

Health.

158. Admissions to hospital fell from 14,876 to 10,401, the daily average number of sick being 461 and the number of deaths 211, as compared with 549 and 324, the corresponding figures of the preceding year. The death rate (15·25) is the smallest ever recorded in the Punjab Jail Department. The diseases of special importance during the year were dysentery, malarial fever, tuberculosis, pneumonia and diarrhœa. There has been a marked decrease in the incidence of dysentery in recent years, thanks to improvements in water supplies, sanitation and accuracy of diagnosis. Eighty-eight admissions and two deaths occurred from dysentery against 129 admissions and 3 deaths in 1919. The great reduction from 4,585 admissions and 18 deaths to 2,744 admissions and 12 deaths in malaria cases was due to the dryness of the year and to special measures taken to remove mosquito-breeding areas. The number of admissions for tuberculosis was 100 and of deaths 52, against 124 and 42 in 1919. Of the deaths 43 occurred at Shahpur Tubercular Jail. One hundred and ninety-two admissions (with 44 deaths) were attributed to pneumonia, against 249 admissions and 66 deaths in the previous year.

22.—Civil Justice.

Institutions.

159. The number of original civil suits instituted in all courts was 198,951, against 189,109 in the preceding year, an increase of 9,842, or 5·2 per cent. Money suits increased by 1,227.

General causes of increase.

160. The fluctuations in the numbers of suits instituted in previous years were due to the abnormal conditions of a period of war, and the present year's figure represents a return to normal conditions. It is noteworthy that the remote district

of Muzaffargarh has become the principal litigating district in the province. In Rohtak, Shahpur, Amritsar, Gujrat and Jhang the rise is attributed to good harvests, the prosperity of agriculturists and the demobilisation of soldiers who, on their return from active service, join eagerly in litigation.

Suits by bankers and shopkeepers.

161. The total number of suits for money or moveable property brought by bankers and shopkeepers against agriculturists increased from 70,325 to 72,243. Muzaffargarh, Dera Ghazi Khan, Kangra, Gurdaspur and Hissar show a very high proportion of this class of suit, while the small proportion found in Jullundur, Ludhiana and Amritsar may be accounted for by the possession of ready money in the hands of persons other than professional money-lenders, with consequent increase in their lending capacity. The Jat money-lender, for instance, appears to be gradually taking the place of the *sahukar* in small villages.

Suits for pre-emption.

162. The number of suits instituted to establish a right of pre-emption showed a very large advance, from 4,872 to 8,340, or about 71 per cent. As the result of a representation from the High Court against the right of pre-emption in urban and suburban areas, the right has been abolished in respect of certain lands adjoining Lahore, and the proposal to extend the process of abolition is under consideration. The increase elsewhere is attributed to the rising value of land and to the intervention of speculators who finance impecunious would-be pre-emptors.

Insolvency Act.

163. There was again a decrease in applications for a declaration of insolvency, from 1,188 to 893. The alterations introduced by the new Act (V of 1920) afford to debtors fewer chances for evading payment of their debts, and actually only 367 applications were allowed by the courts. A recent judgment of the High Court (I. L. R., Lahore, 192) has checked applications from agriculturist debtors who formerly considered that their land would be immune from attachment and from being farmed out. On the other hand, in consequence of the ruling referred to, some creditors are now applying to have their debts proved in old insolvency cases, as they hope to get the lands of their agriculturist debtors farmed out, and so recover some of their outstanding debts.

164. The value of suits instituted rose from Rs. 490 lakhs to Rs. 596 lakhs, and their average value from Rs 260 to Rs. 300. There were fifteen suits valued each at over one lakh of rupees.

Value of suits.

165. Out of 253,607 regular suits before the courts, 179,022 were disposed of, leaving a balance of 56,585, or 11,000 more than the balance of the preceding year. The average duration of contested suits was 92 days and of uncontested suits 51 days (each four more than in 1919). Munsifs disposed rather more rapidly of ordinary contested suits, while suits heard as small causes were completed with less expedition than in 1919. In order to reduce the pending file of munsifs, six additional appointments were sanctioned during the year.

Disposal and average duration of suits.

166. Fewer applications were presented for execution than in 1919, fewer were disposed of, and more remained pending at the close of the year. The amount realised, too, was less (Rs. 65¼ lakhs against Rs. 69·92 lakhs). The percentage of realisations was highest in Hoshiarpur and lowest in Sheikhupura.

Execution.

167. The average duration of regular appeals rose from 127 days to 130, while that of miscellaneous appeals fell from 96 to 83 days.

Average duration of appeals.

168. A further increase has to be noticed in the average duration of first appeals in the High Court. These appeals, considerably in arrears in 1919, have fallen still further into arrears and a still heavier accumulation was expected, unless immediate steps were taken to remedy the situation. The criminal work of the High Court is exceptionally heavy, as may be readily understood from the fact that the file of murder references in one year is equal to those dealt with by the High Courts of Bengal, Bombay, Madras, and Bihar and Orissa put together. Two more Additional Judges have been appointed to cope with the accumulated burden of work.

High Court appeals.

169. Three companies were finally dissolved during the year and ten more were ready for dissolution at its close, while steady progress was made in winding up the remaining seven companies. Creditors of the Public Banking and Insurance Company, Limited, received 16 annas in the rupee and interest ; those

Liquidation work.

of the Indian Exchange Bank, Limited, were paid 14 annas in the rupee, and those of the George Bank, Limited, 16 annas in the rupee, without interest.

23.—Registration.

General business.

170. In comparison with the preceding year the number of compulsorily registered instruments increased by 8 per cent. and their value 26 per cent. In the district reports different explanations of this increase are given. In Hoshiarpur poor harvests are alleged to have caused an increase in the number of alienations of agricultural land, while in Gurdaspur mortgaged lands were re-mortgaged in part on condition that the new mortgagee would discharge the whole of the previous mortgage debt. Many of those who enlisted in the army invested their savings in taking in mortgage lands of their poorer neighbours.

Immoveable property.

171. Optional registrations affecting immoveable property decreased by 16 per cent. in number but increased by 14 per cent. in aggregate value, owing to a rise in the value of land. There has of late been a steady fall both in the total number and in the aggregate value of such instruments of sale and mortgage. An increase in the aggregate value of other classes of instruments is accounted for by the fact that in Lahore a single lease of the value of Rs. 30,000 was registered and in Multan the aggregate value of 32 "other instruments" was above Rs. 1·65 lakhs.

Moveable property.

172. The variations in optional registrations affecting moveable property, namely, an increase of 8 per cent. in number and of 19 per cent. in aggregate value, call for no particular comment.

Land Alienation Act.

173. Very few deeds were presented for registration in which the provisions of the Punjab Alienation of Land Act were infringed and in all cases, except some in Gujrat, the fact of the infringement was detected before registration.

Income and Expenditure.

174. Owing to an increase in the total number and aggregate value of registrations, the income of the department rose from Rs. 5·23 lakhs to Rs. 5·92 lakhs, or 14 per cent. Expenditure also rose by 20 per cent. owing chiefly to the creation of one post of permanent sub-registrar, two of permanent

muharrirs and several of temporary additional muharrirs, and to the payment of war and temporary allowances. The net profit on the operations of the department was Rs. 3,85,189, as compared with Rs. 3,51,269 in the preceding year.

23-A.—Legal affairs of Government in the year 1920.

General.

175. The number of references for opinion disposed of by the Legal Remembrancer was 930, as compared with 918 in the year 1919 and 956 in 1918.

Original suits—cases in which Government was plaintiff.

176. The Secretary of State was plaintiff in 30 original suits during the year. Of these, 7 were decided in favour of and 1 against Government, whilst 22 remained pending at the close of the year. Of the 7 cases decided in favour of Government, 1 was for possession of land and 6 for recovery of money. The total amount involved was Rs. 85,804.

Original suits—cases in which Government was defendant.

177. The Secretary of State was defendant in 157 original actions, including land acquisition references. Of the 26 land acquisition cases, 18 were decided and 8 remained pending. The Collector's award was upheld in 9 of them. Of the other 131 civil suits, 27 were decided in favour of and 20 against Government; 5 were compromised and 2 withdrawn; 77 remained pending at the close of the year.

The total amount involved was on account of—

		Rs.
(*a*) Land acquisition references	...	8,84,220
(*b*) Other cases	... ...	3,80,409
Total	...	12,64,629

In class (*b*) above, the total amount claimed in decided cases was Rs. 93,575, out of which only the sum of Rs. 50,920 (including costs) was decreed against Government; whilst Rs. 5,936 was awarded to Government on account of costs in which the plaintiffs were unsuccessful.

Appeals.

178. The Secretary of State was appellant in two cases, one of which was decided against Government, and the other remained

pending at the close of the year, while out of the eight appeals in which Government was respondent none were brought to a decision.

Criminal Courts.

179. Government law officers appeared in the High Court in one original trial, which was decided in favour of Government. Of 982 criminal appeals in the High Court 767 went in favour of, and 215 against, the Crown. The Crown was also successful in 250 out of 328 applications for revision and unsuccessful in the remainder. There were 18 miscellaneous cases, of which 4 were decided in favour of, and 14 against, Government.

24.—District and Local Boards.

General.

180. Since the inauguration of the new electoral rules throughout the province, no constitutional changes have taken place, but the Ferozepore District Board has not so far, owing to delay in the elections, carried out its reconstitution in accordance with the new rules. In the Ambala district a demand for an extension of the franchise has been made in consequence of the imposition of a professional tax upon merchants, contractors and shopkeepers, the protest against the tax being based on the principle that there should be no taxation without representation. It is rumoured that a similar outcry will be raised against the status tax which is to be introduced in the Gurdaspur district.

Elections.

181. The reports of contests for elections show wide divergencies in the districts of Lahore and Gurgaon. In the former, there were 7 contests for 28 seats, a fact whichseems to point to apathy on the part of the public. On the other hand, where contests actually took place, 37 per cent. of the electors voted, a percentage higher than that secured in the province in the general elections for the Council in 1920. In Gurgaon there were 7 contests for 34 seats, and only in 2 cases did the successful candidate carry more than 10 per cent. of the electorate with him. In respect of 10 electoral circles no nominations were received and the seats were filled by appointment. Indeed, election in Gurgaon is reported to be not only farcical, but actually unpopular ; the inhabitants do not appreciate democratic methods and dislike the formalities which are prescribed for elections. The result of

their attitude is displayed in the proportion of elected to nominated members, which is 6 to 34.

Working of the district boards.

182. It is indisputable that in many parts of the province there has been no quickening of interest in district board administration. Both the number of meetings and the percentage of attendance of non-official members in the Rawalpindi division show no increase; in Dera Ghazi Khan only one meeting, attended by two members, was held during the whole year, while in Amritsar the board met only six times in twelve months. The contention, therefore, that lack of interest and lack of communications go hand in hand does not hold good everywhere. One method of disposing of business, vigorously carried out in Lyallpur, Montgomery and Rohtak, has been to appoint sub-committees for finance, education, sanitation, etc., while tahsil sub-committees have done good work in Hissar, Jullundur and Ferozepore. Attock has devised another method which, however, it would not be wise to encourage except in the disposal of petty business,—namely, to entrust to members the annual repairs of primary schools and cattle-pounds, lump sums being placed at the disposal of such members, who subsequently render accounts for the expenditure incurred.

Finance.

183. The boards are at length beginning to realise that Government cannot indefinitely increase grants or give fresh grants for any new schemes that the boards may wish to carry out, and the introduction of the professional tax and the status (*haisiyat*) tax in certain districts is a hopeful sign for the future. In Jhang an application has been made for permission to raise the local rate above the maximum at present possible under the Act. There are some slight indications that boards will possibly in the future take larger views of their obligations and responsibilities and endeavour to meet them by more progressive methods of finance rather than by being content to ask for enhanced grants or to continue in time-worn grooves.

Income.

184. The gross income of district boards rose by Rs. 5 lakhs to Rs. 112·73 lakhs, but Government grants amounted to Rs. 12·79 more than in the preceding year, so that the true income of the boards has actually decreased by Rs. 7¾ lakhs. Local rates realised about Rs. 47,000 more than in the preceding year, and middle

school fees and private contributions towards medical relief increased by about Rs. 48,000 and Rs. 36,000 respectively. On the other hand, horse fairs, cattle fairs, private contributions for educational purposes, fees in primary schools, and hospital and dispensary receipts all show less income. The differences between districts in the incidence of taxation per head of population are astonishing; in Hissar and Jhelum the incidence is Re. 0-2-1, closely followed by Mianwali with Re. 0-2-2 and Attock with Re. 0-2-3, while the Rohtak figure is Re. 1-3-0 and that of Sialkot Re. 0-15-5.

Expenditure.

185. Expenditure increased by Rs. 23·85 lakhs to Rs. 122·32 lakhs and thus exceeded income—including the Government grants—by nearly Rs. 10 lakhs. These figures speak for themselves and there is still reason to wonder whether local self-government is, without further training and guidance given to the boards, within the compass of their capabilities. The maintenance of general establishments rose from Rs. 2·69 lakhs to Rs. 3·50 lakhs, the cost of education from Rs. 35·29 lakhs to Rs. 44·41 lakhs. Hospitals and dispensaries absorbed Rs. 7·37 lakhs, or more than a lakh above the previous year's figure, while expenditure on civil works generally increased by over Rs. 12 lakhs to Rs. 51·61 lakhs.

Education.

186. The expenditure on education, as noticed above, amounts to Rs. 44·41 lakhs, or a little over one-third of the total income of the boards. In some districts of the Jullundur division this proportion is exceeded, the percentages showing Kangra (44·5), Hoshiarpur (48·6), Jullundur (49·2) and Ludhiana (47·5). Some fear is expressed that in Multan the present commitments on education are already beyond the board's resources and generally it may be said that endeavours are needed to consolidate the position already won before attempting an advance in the direction of opening new schools. There is too strong an inclination to open fresh schools without properly considering whether existing institutions are being adequately managed or are attended by all the scholars for whom they are intended. Rapid progress is, indeed, reported from Shahpur and Gujrat, in the former of which seven night schools have been opened for agriculturists. The interest taken in education is great in the majority of districts, but it is not always clear that efforts are well directed.

187. There is a general complaint of insufficiency of funds for civil works, and expenditure rose from Rs. 39 to Rs. 51½ lakhs, very largely as a result of the rising prices of materials and labour. In consequence there are many proposals to re-transfer roads serving more than one district to provincial management. The most important of these is the Rawalpindi-Khushalgarh road, in Rawalpindi and Attock districts, which cannot be kept up as a metalled road by the boards concerned. It is a road of considerable military importance, and the proposal to re-transfer has already been laid before the Communications Board. Once more Lyallpur is to be congratulated on a successful year, the amount of work put through being certainly remarkable and including 66 educational works, among which are two primary schools, and two boarding houses, Rs. 23,?67 spent on medical buildings, and Rs. 38,010 on metalled and unmetalled roads. The total amount spent by this board on civil works during the year under review is Rs. 2·03 lakhs, out of which Rs. 1·10 lakhs was spent on educational works alone. In Rohtak—the district with the largest mileage of metalled road in the province—and in Shahpur it is found that the use of motor lorries on the roads tends to make adequate maintenance an impossibility, and it is hoped that some means will be found for making heavy cars and motors running on hire contribute to board's funds. A suggestion of the Communications Board to adapt to this province sand-clay roads, laid after an American model, has been taken up by the Karnal district board. As a preliminary experiment a short stretch of road from Panipat to the River Jamna has been consolidated in this manner. It is too early to say whether the experiment will be a success, but other boards will no doubt watch results closely, and, if successful, adapt the new methods to their own use.

Civil Works

188. The best results from arboriculture were obtained in Ambala and Gurdaspur districts, where net profits of Rs 38,795 and Rs. 26,422 respectively accrued to the boards under this head. In Ambala the following operation has proved very successful. Some 200 mis-shapen, stunted or otherwise injured *shisham* and *siris* trees, under 3 feet in girth, were cut flush with the ground, with the result that vigorous, sound, and straight shoots have sprung up. This method seems to combine the advantages of felling and planting simul-

Arboriculture.

taneously and a knowledge of its apparent efficacy should not be confined to a single district. It is reported that the Arabian date plantations in Muzaffargarh are doing well, while in Shahpur the experiment in sericulture is stated to be successful and deserves the attention of boards in other colony districts.

Miscellaneous.

189. Notwithstanding adverse climatic conditions commendable keenness was displayed in the progress and extension of demonstration farms and agricultural schools, particularly at the farm at Bohar in the Rohtak district. On the other hand, cattle-breeding has, except in the Ambala division and in Lyallpur, shown little improvement, probably owing to the scarcity of fodder. Horse-breeding in Dera Ghazi Khan is reported to be languishing, and the Army Remount Department is turning its attention to more interesting fields further east. In the sphere of medical relief there is a general cry for more money and large sums are still required for improvements although a little over a lakh of rupees more was spent under this head in 1920-21 than in the preceding year and larger contributions were made from sources other than Government grants.

25.—Municipal Administration.

Elections.

190. During the year several elections were held in 30 municipalities, covering all divisions, with the single exception of Multan. In Ambala there was a very keen contest in which it is reported that much personal rancour was displayed. The same is true of the elections in the Rawalpindi division, where the Commissioner reports that there is no real public spirit, nor any reasoned appreciation of the value of the franchise. In Rawalpindi itself the elections were keenly contested, but stimulated not by any healthy issues of principle or policy, but by personal and sectarian feelings. From Dharmsala a keen and fairly fought contest is reported, but unfortunately these elections had subsequently to be declared invalid, as they had not been held on the date fixed. There was a hot fight at Jullundur, where most of the seats went to the Congress party, who had organised well. A vigorous election is also reported from Kasur, but this result was marred by an annulment on account of corrupt practices. The large number of unopposed returns in many

municipalities shows that much work remains to be done before the elective system can be valued at its true worth. Sometimes, communal rivalry has resulted in the withdrawal of candidates: at Pasrur the Hindus agreed amongst themselves not to stand, fearing that the increased interest shown by Muhammadans in the elections would bring about their defeat. The result was that Muhammadans were returned unopposed in a municipality formerly consisting of five Hindus and a single Musalman. In this connection a desire for the introduction of the communal system of election has been expressed in some quarters, and actually introduced in Jagraon and Raekot in the Jullundur division. In the majority of cities the electors are divided into wards, which are often made to correspond as far as possible with the quarters inhabited by the different communities But this system often involves contests between the communities, and thus there has arisen a demand that the Council system should be extended to all municipalities. The matter is under the consideration of Government.

Working of the committees.

191. All municipal committees held the prescribed number of meetings and the attendance of members is reported to have been generally satisfactory. As a rule the transaction of business has been best carried out where the committees contain men of good education, but Ambala forms an exception to the general rule, and the eastern portions of the province, where no large towns exist, are on the whole more backward than elsewhere in the conduct of municipal affairs. In the year 1920-21, the committees of Lahore and Amritsar took a keen interest in their duties, but towards the close of the year there were signs in the former committee of an inclination to sacrifice the proper performance of its functions to an ill-placed interest in political questions. Encouraging reports were received from all the districts of the Multan division, with the single exception of Dera Ghazi Khan, where there was a cleavage on religious lines, coupled with a tendency for discussion to assume a personal bias. The main defect in the discharge of business by committees and their sub-committees was the disregard of rules and regulations, of which the staffs were themselves ignorant. In Gujrat serious misappropriations came to light in the course of audit and prosecutions followed; a somewhat similar state of affairs was disclosed in Shahpur and Gujranwala.

Income and Expenditure.

192. The total income of municipalities increased from Rs. 114·30 lakhs to Rs. 131·99 lakhs, and total expenditure amounted to Rs. 130·95 lakhs. Establishment and the collection of taxes cost municipalities Rs. 6·67 lakhs, while expenditure on public instruction rose to Rs. 13½ lakhs.

Taxation.

193. The total receipts from taxation amounted to Rs. 67·77 lakhs, as compared with Rs. 59·58 lakhs in the preceding year, and the incidence of taxation per head of population rose to Rs. 4-2-9, though the incidence naturally varies enormously in different municipal areas. The movement towards the substitution of octroi by a terminal tax continues, and a number of important committees, including those of Lahore and Amritsar, are preparing for the change. Octroi realised altogether Rs. 55·76 lakhs, an increase of Rs. 2·79 lakhs over the figure for 1919-20, while the receipts from terminal tax rose by Rs. 1 lakh to Rs. 5¾ lakhs. It is still early to prophesy what future lies before the terminal tax, which has certain obvious defects, particularly where it is imposed only on rail-borne articles. A tax of this kind superseded octroi in Hoshiarpur with effect from September 1920, and the income is reported to be on the decrease because traders are evading the tax by booking merchandise to and from a station five miles distant on a metalled road.

Improvement schemes.

194. The Rewari water-works scheme was carried through during the year, but owing to certain defects the distribution of water in the town proved unsatisfactory and it is now proposed to transfer the control of the scheme to Government. The Multan municipality has three large schemes in hand, for the provision of drainage, water supply and electricity, and notwithstanding various disappointments proposes to proceed with its undertakings. In some cases committees have had to abandon drainage and water-works schemes owing to lack of funds. After considerable delay in the selection of a site the Rawalpindi committee is at length setting to work to have constructed a large male and female hospital, while the Mianwali Victory Memorial Hospital was actually opened in August 1920.

Miscellaneous.

195. Widespread fires occurred in Gujranwala and Murree, and there were as many as nine cases of fire in Kasur alone, where two ginning

factories and glass works were gutted. Epidemics of disease were confined mainly to the west of the province, plague breaking out at Multan and Hazro. The latter place, together with Sargodha and Murree, also suffered from smallpox, but the loss of life was not heavy and on the whole the year could be classed as a healthy one. Housing problems have, through lack of funds, not gone far towards solution, and little improvement is discernible in the collection of fees for medical relief. On the other hand, education is making a steady advance in most municipalities in the province.

26.—Military (Auxiliary Force).

General.

196. On the 1st October 1920 the Indian Defence Force was superseded by the Auxiliary Force. The one mounted and three infantry units of the Auxiliary Force in the province were the Punjab Light Horse, the Punjab Rifles, the Simla Rifles and the North-Western Railway Regiment.

Punjab Light Horse.

197. The headquarters of the Punjab Light Horse are at Lahore, with detachments at Rawalpindi and Amritsar. Delhi now has a contingent of its own, to which the former members of the Punjab Light Horse residing at Delhi have been transferred. The strength on 31st March 1921 was 174 and recruitment is proceeding. A light motor patrol has been constituted for men who possess motor cars.

Punjab Rifles.

198. The present strength of the battalion is 530, as compared with 756, all ranks, on 30th September .1920 under the Indian Defence Force.

Simla Rifles.

199. The Simla Rifles have been steadily increasing in numbers and now muster about 300 men, including 28 who have received training as Lewis gunners.

North-Western Railway Regiment.

200. The 1-24th and 2-24th battalions have now been constituted as the 1st and 2nd Battalions, North-Western Railway Regiment, under the Auxiliary Force Act, 1920. The strength of this regiment on 1st October 1921 was 1,159, all ranks. Six officers and men gained distinctions during the the year.

CHAPTER IV.

Production and Distribution.

Detailed information on the subjects dealt with in this chapter will be found in the reports and statistical tables noted below :—

PROVINCIAL REPORTS.

Agriculture.—(1) Report on the Operations of the Department of Agriculture, Punjab, for the year ending 30th June 1921.

(2) Annual Report of the Punjab Veterinary College, Civil Veterinary Department, Punjab, and Government Cattle Farm, Hissar, for the year 1920-21.

(3) Report on the Land Revenue Administration of the Punjab for the Agricultural year ending 30th September 1920.

(4) Report on the working of Co-operative Societies for the year ending 31st July 1921.

Fisheries.—Report on the Department of Fisheries, Punjab, for the year ending 31st May 1921.

Weather and Crops.—(1) Report on the Weather of the Punjab for the year 1920-21.

(2) Punjab Season and Crops Report for 1920-21.

Horticulture.—Report on the Lawrence Gardens, Lahore, for the year 1920-21.

Forests.—(1) Progress Report on Forest Administration in the Punjab for 1920-21.

(2) Report on the Administration and Accounts of the District Boards in the Punjab for the year 1920-21.

(3) Land Revenue Report, as above.

Manufactures.—Report on the working of the Factories Act in the Punjab during the year 1920.

Trade.—(1) Report on the Internal Trade of the Punjab by rail and river for the year 1920-21.

(2) Report on the External Land Trade of the Punjab for the year 1920-21.

(3) Report on the Joint-Stock Companies in the Punjab for the year 1920-21.

Public Works.—Administration Report of the Public Works Department, Punjab, Buildings and Roads Branch, for the year 1920-21.

Irrigation.—(1) Administration Report of the Public Works Department, Punjab, Irrigation Branch, for the year 1920-21.

(2) Land Revenue Report, as above.

PUBLICATIONS OF THE GOVERNMENT OF INDIA.

Agriculture.—Statistical Abstracts for British India, Volume I, Commercial Statistics.

Forests.—Statistical Abstracts for British India, Volume II, Financial Statistics.

Crops.—(1) Agricultural Statistics of India, Volume I, Tables II and III.

(2) Estimate of Area and Yield of certain principal crops in India.

(3) Prices and wages in India.

(4) Variations in Indian Price Levels.

Mines and Quarries.—(1) Statistical Abstracts for British India, Volume I, Commercial Statistics.

(2) Records of the Geological Survey of India, Volume XLVII, Part 3.

(3) Report of the Chief Inspector of Mines in India.

Manufactures.—Statistical Abstracts for British India, Volume I, Commercial Statistics.

Trade.—(1) Inland Trade (Rail and River-borne) of India.

(2) Statistical Abstracts for British India, Volume I, Commercial Statistics.

Railways.—Administration Report on Railways in India for the year 1920-21.

Irrigation.—Statistical Abstracts for British India, Volume I, Commercial Statistics.

27.—Agriculture.

SCIENTIFIC.

General.

201. With the inauguration of the Reforms Scheme in January 1921 Agriculture has become a "transferred" subject under the control of the Ministry of Agriculture. The department suffered from the loss of Mr. Roberts, Principal of the Agricultural

College, who has joined a private firm at Khanewal, and of Mr. Faulkner, Deputy Director of Agriculture, who obtained the appointment of Director of Agriculture in Nigeria. The pay of all officers of the department, except that of *mukaddams*, whose case is still under consideration, was revised and improved during the year.

The Lyallpur College.

202. The number of applications for admission continues to be far in excess of the number that can be admitted at the present time, and steps are being taken considerably to increase the capacity of the college. Six out of eleven candidates obtained the degree of B. Sc. in Agriculture, the failures being principally due to insufficient knowledge of chemistry. The rural economy class, which lasts for only one month and is intended merely to show something of what is being done by the department, was attended by 23 students, while the vernacular class, a six months' course, admitted 26 out of 76 applicants for entrance. Nine students left the college during the excitement caused by non-co-operation in November 1920 : of these three eventually rejoined. It is satisfactory to record that nothing untoward happened in the college as a result of the events at Nankana in February 1921.

Experiment and research—
(*i*) Botany.

203. Botanical research is in the Punjab naturally confined for the most part to wheat and cotton, which are the most important crops. In the case of the former, Mr. Milne's 8-A has in nearly all tests maintained its superiority over all the other varieties under trial, and there is now a considerable demand for this wheat among *zamindars* for sowing purposes. Work on the earcockle disease in wheat continues, and an illustrated pamphlet on the subject is being distributed in English, Urdu and Gurmukhi. In the experiments with cottons noted by the Economic Botanist 287-F has beaten 4-F. These two varieties have both been successful in Mesopotamia, where, however, the yields were extraordinarily high in 1918-19 but fell in 1920 owing to the lands becoming exhausted. Experimental work in date palms, imported from Mesopotamia, is proving successful in the district of Muzaffargarh.

(*ii*) Chemistry.

The experiments so far conducted have been designed mainly to ascertain what crops are the best suited for cultivation on *bara* land,

and they appear to indicate that sugarcane is the only crop that can be successfully grown. Satisfactory results have also been obtained in determining the effect of green manuring (*a*) in retaining moisture, and (*b*) on the yield of the following crop.

Sericulture.

204. Silk worm seed was distributed to the extent of 1,762 ounces, as against 600 in the preceding year and rearing has been started in eight new districts, while 359 new rearers have been trained. Unfortunately, owing to the unfavourable season, hatching was not satisfactory and the yield of cocoons very poor. Arrangements were made to distribute 3,000 ounces of eggs in 1921-22. It was decided to transfer the whole of sericulture to the Agricultural Department, the Department of Industries taking charge once the cocoon has been produced. A comprehensive scheme for the development of sericulture in the province is under the consideration of Government.

Entomology.

205. The most important item of research in this department was the enquiry into methods of protecting stored grain from weevils. Spraying experiments were continued against the *Citrus Psylla* and the mango-hopper. A travelling exhibition in entomology and sericulture was prepared, and during the year five different places were visited with a view to extending propaganda work and to spreading among the people a knowledge of the activities of the department. It is interesting to note that at Muktesar, in the Ferozepore district, more than 6,000 visitors came to the entomological camp.

Agricultural engineering.

206. Difficulties in transport and increase in the cost of material continued to affect the progress of work in the agricultural engineering section, but nevertheless 392 new bores were sunk, as against 360 in the preceding year. The tube wells at Jalalabad and Muzaffargarh have been completed and are working satisfactorily. A second post of agricultural engineer has recently been sanctioned and in future the exigencies of teaching will not prevent this section of the department from devoting more time to research, experimental and provincial work.

Experimental farms.

207. Experiments continue to be carried out at Lyallpur, Gurdaspur and Hansi farms. Full details are given in the Annual Experimental Record issued as Part II of the Annual Report.

DISTRICT WORK.

Implements.

208. Although sales have again been greatly affected by high prices, imported implements have found a ready market, the number sold in 1920-21 (excluding ploughshares) being more than double that of the previous year. The cheap Meston ploughs and the Raja fodder-cutters are particularly popular. Of country-made implements, bar harrows and drills, some of which are now sold through the Co-operative Department, are growing in favour at Lyallpur, where practical classes are held to train *zamindars* in the use of these implements. Much interest, too, has lately been evinced in tractors, different types of which have been purchased by a few large land-owners. These tractors are believed to have been found useful for the cultivation of unirrigated land, but their future in the province is by no means yet assured.

American cotton.

209. The limited success of American cotton in 1919 and 1920, particularly in the Lower Jhelum Colony in the latter year, combined with a great scarcity of fodder, has caused a larger area than usual to be placed under fodder crops, at the expense of cotton. Experience shows that American cotton generally needs better land, better water-supply and better cultivation than does country cotton, and that where those conditions are lacking it is wisest to sow *desi* cotton. Nearly all the American cotton planted is of the variety known as 4-F., and notwithstanding the comparative cheapness of cotton in the year reviewed it fetched a minimum premium of Rs. 2 per maund of unginned cotton over the country article. Assuming even a poor yield of five maunds an acre, the premium amounted to at least Rs. 10 an acre and was actually in many cases largely above that figure. Two thousand acres were sown with 285-F. cotton in canal colonies and the results of the experiment will be watched with interest.

Cotton auctions.

210. Twenty auctions were held at which 84,847 maunds of cotton were sold, the prices varying from Rs. 8-1-0 to Rs. 14-12-6, considerably lower than the prices obtained in the preceding year.

Wheat.

211. The two wheats which now compete for favour are the old established Punjab-11 and the more recently selected 8-A. The former is particularly encouraged in canal colonies, but it is not unlikely

that 8-A will predominate at any rate in the eastern part of the province. There was a big increase in the acreage sown under Punjab-11, from 377,500 acres to 634,000 acres, the principal expansion occurring in the Lower Bari Doab Colony. 8-A is at present grown only by a few selected *zamindars* in the Lyallpur circle, while in the Gurdaspur and Hansi circles it was sown on only 1,200 acres and 4,000 acres respectively, Pusa-12 still being the favourite in that locality.

Seed depôts.

212. The figure given in last year's report of profits on the seed depôts was incorrect, the profits on wheat and cotton seed respectively being Rs. 344 and Rs. 20,451. The corresponding figures for 1920-21 are Rs. 3,228 and minus Rs. 186.

Demonstration work.

213. Demonstration work in the province is carried on in farms which may roughly be classified as Government farms, district board farms (some of which are aided by Government) and private farms. In the second category the district board farm at Sialkot deserves special mention for the satisfactory condition which it has reached in a short space of time. The opening of demonstration farms by the Co-operative Department and by private individuals is, however, the most interesting advance in this direction. At all these farms the varieties of seed recommended by the Agricultural Department are sown and approved cultural and manurial methods are practised.

MISCELLANEOUS.

Agricultural associations.

214. Agricultural associations continued to hold their usual half-yearly meetings. They exist in practically every district in which the department is working. It is satisfactory to note that meetings are better attended and that members generally take a more intelligent interest than used to be the case.

Wheat elevator.

215. The year was a most unfortunate one for the initial stages of such a venture. Owing to the complete and, latterly, partial embargo on the export of wheat, it was found impossible to export any elevator wheat overseas. Dealers, however, passed nearly 2,000 tons of wheat through the elevator : it was in the main purchased by mills in India and generally realised

from 3 to 4 annas a maund more than the best bazar wheat. Small samples, too, were sent to England and found a favourable reception.

Co-operative Societies.

216. The severe scarcity and the fodder famine, combined with the disturbance of the money market, imposed a heavy strain upon the credit side of the co-operative movement during the year, and resulted in a slight retardation of the rate of progress. But the number of societies rose by 1,279 to 8,453; members increased in numbers by 33,882 to over 239,000; while the great efforts to raise funds to meet the insistent demands arising from the prevailing conditions resulted in an addition of Rs. 84 lakhs to the gross working capital. The organisation of credit societies had to be restricted because, owing to the stringency in the market, it was not possible to finance them; but this side of the movement undoubtedly achieved great success in affording assistance to members, and in consequence attained further popularity. To some extent, resort to money-lenders was unavoidable, but these were too greedy to take full advantage of their opportunity of posing as the real friend, and put up their rates with the result that the benefits of co-operative credit received fresh corroboration. Although the year witnessed a distinct increase of indebtedness, it is expected that the severe scarcity will in the end do good in bringing home the need for thrift and for a good reserve to meet similar occurrences. The true idea of co-operative effort is spreading and gains in popularity. The fact that nearly Rs. 83 lakhs were advanced as compared with Rs. 47 lakhs two years ago illustrates the progress made. Four years ago, the total sum advanced for all purposes was Rs. 30 lakhs; this year as much was lent for fodder, seed and cattle alone. The insistent demand for more and ever more money was only met by equally insistent efforts to attract deposits; primary societies succeeded in gaining over Rs. $7\frac{1}{2}$ lakhs more than they paid out; Unions added over Rs. 4 lakhs, and Central Banks collected more than Rs. 16 lakhs in excess of withdrawals. In a year when recoveries were of necessity small, this increase of working capital was more than satisfactory. In no case did the political agitation lead to withdrawal of deposits or to the liquidation of societies. On the other hand, the special circumstances of the year afforded unusual oppor-

General.

tunities for the practical application of the co-operative method; fodder, seed, etc., were distributed on a large scale, and at a price well below that demanded from those who had not joined the movement.

217. The Punjab Co-operative Union continues to make steady though slow progress as the central body for the province. It is hampered by want of funds and an appeal to all societies to contribute 8 annas per member as a special aid did not yield much during the year owing to the prevailing stress. Four new central banks were started, the only one deserving of special mention being one for Christian societies. Amongst the older institutions, Lahore and Jullundur are making marked progress. Banking unions increased by 13 to 63, and were useful in attracting deposits that would not have reached the central banks. These unions are valuable training centres; they serve to develop the co-operative spirit in the rural tracts to an extent which is impossible in the suspicious air of the towns. Taking both types together, they have increased their working capital from under 46 to over 100 lakhs in four years. Considering the youth of these institutions, their growth and their increasing financial stability augur well for the future. The construction of a sound system of rural credit for a province of the size of the Punjab should be reviewed by decades, not every year.

Secondary institutions.

218. The popularity of the agricultural credit society is now assured. Its success is beyond dispute. What is now required is money to finance and staff to teach and supervise. The rule of indivisible profits is being more generally adopted; the importance of this rests in the fact that it results in the steady accumulation of a common fund in each village. In Jullundur District each society has on the average Rs. 2,400 owned capital, shares and reserve; if every village in the province could tell the same tale, there would be several crores of savings available for the needs of the cultivators. Members are steadily being added, but the improvement in teaching and quality is more remarkable than the mere increase in numbers. Recoveries naturally declined in a year of severe scarcity, but the total of Rs. 54 lakhs was on the whole rather better than the circumstances of the time suggested as reasonable. The members now own over Rs. 127 lakhs of the capital, a sufficient

Agricultural societies.

testimony to the essential financial soundness of the system. There are still large sums outstanding from unsatisfactory members, and little progress could be made in collecting these during the year. Two good harvests will remove these defects, as there is real inability to repay at present.

Liabilities and assets.

219. Over Rs. 18 lakhs were advanced for purchase of cattle, over Rs. 7 lakhs for fodder and nearly Rs. 4½ lakhs for seed. The considerable increase over last year's figure is, of course, due to the fodder famine and acute scarcity. For the repayment of old debt, over Rs. 14 lakhs were lent, making over Rs. 56 lakhs in the last five years. That the members are rapidly getting rid of their old liabilities is made clear from the examination of the working of societies which completed their tenth year in the period under review. In 246 such societies, unsecured debt to the extent of Rs. 6·3 lakhs, and secured debt to the extent of Rs. 4·5 lakhs have in the course of ten years been paid off. Two thousand eight hundred and fifty acres of land have been redeemed; 1,477 acres have been taken in mortgage for Rs. 3·7 lakhs, and 2,300 acres purchased for Rs. 6 lakhs. In addition the members have collected over Rs. 2 lakhs in shares and reserve. Thus while debt has decreased by Rs. 11 lakhs, assets have increased by Rs. 13 lakhs. Over 3,600 members of these societies have become free of debt. The special inquiry into the effects of co-operative effort made when the society becomes ten years old brings additional proof of the value of the movement to the people. The fact that about Rs. 178 lakhs are loaned out to members at a comparatively low rate of interest, and that out of the interest received about ten lakhs a year represent profit which is added to the reserve, needs no comment.

Cattle insurance.

220. Cattle insurance makes slow progress, but such a novelty will not grow popular in a day. The heavy cattle mortality and the forced sales of animals that could not be preserved led to a decline in the work of some societies; in seven, no premia were collected at all. The Re-insurance Union is working satisfactorily.

Special features.

221. Two features deserve special notice: last year there was started in Jhang the first co-operative mortgage bank in India; this institution has already advanced Rs. 73,000 of which

Rs. 58,890 was devoted to redeem 870 acres of land. The balance went to redeem *sajji* trees and old debts. In spite of the prevailing scarcity, the recoveries made were in excess of the instalments fixed. Further progress is limited by want of funds, for, although the security is ample and good, capital is shy. The other feature is the attempt to combat the evil of scattered holdings by the organisation of special Consolidation of Holding Societies; the success already attained is worthy of note. In 44 villages the work of re-partition was completed, possession exchanged and mutation in the revenue records sanctioned. In these villages, 1,613 members have consolidated 6,350 acres; the number of fields has been reduced from 10,783 to 2,044. Work is being carried on in about 40 other villages. Much patience is required, while tactful explanation is essential. The benefits are admitted readily, but there is a perfectly natural disinclination to part with the ancestral acres. How necessary the work is will be understood from the fact that, in Jullundur District, there are at least eight villages, owned by 2,449 persons, whose 12,800 acres are divided into 63,000 fields, the average size being under one-quarter of an acre; in one village, the average size of its 16,000 fields is one-eighth of an acre. Similar figures could be supplied from other districts of the central Punjab. A special staff is now engaged upon this work, and it is hoped that progress will be continuous and steady.

Arbitration societies.

222. Another interesting experiment is the attempt to organise public opinion against litigation by the formation of arbitration societies At the close of the year, there were 87 societies with 10,299 members, and a number of disputes had been decided. The idea is proving popular.

Miscellaneous.

223. In order to tackle the difficult problem of illiteracy and ignorance which restricts co-operative work, about 10[illegible] night schools have been started in which reading and writing are taught to adult members. The expenses are borne by the members or by the local credit society. The 1,783 students are said to be regular in their attendance and are reported to be making satisfactory progress. Much more could be done if there were teachers available for the would-be pupils; efforts are being made to start such schools wherever

local circumstances permit ; the benefit to the movement and to its members should be very great indeed if these institutions can be spread throughout the province. Other forms of co-operative activity include silt clearance on inundation canals, land reclamation, cattle and sheep breeding, mare insurance, thrift and saving, and seed and demonstration farms. It is too early yet to pronounce any opinion on the prospects of these new farms, but the persistent teaching of the highly trained staff is undoubtedly producing a good effect. Especially is this the case in stimulating agricultural improvements ; a considerable number of implements and large quantities of seed are being supplied, and the planting of fruit trees is being steadily encouraged.

Non-agricultural societies.

224. As a result of the attention paid in recent years there are now 303 non-agricultural societies, with 15,371 members. Of these 79 are industrial, weavers' societies heading the list with 57. The credit societies are making satisfactory progress ; the large institutions of the North-Western Railway and of the Telegraph Department are on the whole well managed although their control is not as co-operative as could be wished. Societies for supply in the towns are not doing well owing to the lack of public-spirited men to look after them. The urban resident is prepared to buy cheap food, etc., if procured for him, but he shows little inclination to make any effort in his own behalf. The weavers' societies improved markedly in the last few years, under the careful supervision of the Deputy Registrar. They have now started five night schools of their own with 79 pupils, all adult weavers. Many members are joining the Government weaving schools and the improved fly shuttle loom and warping creel are winning popularity. The Central Weavers' Stores is becoming an important concern. Its working capital is now Rs. 1·32 lakhs ; it sold material of about this value to members and disposed of over a lakh of rupees worth of their products. Although there is a vast amount of constructive work still to be done, it is encouraging to find that the weavers' own capital in their societies is now Rs. 47,500. Unfortunately there is great difficulty in finding a market for their manufactured products. The eight societies of calico-printers continue to do well.

Quality.

225. The standard of work throughout the movement continues to show steady improvement; indeed, the most hopeful feature is the growth of a wider knowledge and a better appreciation of what co-operation means and stands for. The province now possesses a large number of really good societies, whose members understand the essential principles and are developing a true co-operative spirit. That the test is carefully applied is clear from the fact that the proportion of societies in the two upper classes increased only by one per cent. during the year; but in numbers there was a more marked increase. The expulsion of bad members and the liquidation of hopeless societies proceeds steadily and has good results. On the whole there is a very large number of members of committees who may now be said to be devoting themselves unselfishly to the public good.

Success of the movement.

226. Although the movement is now assuming its place as a permanent feature in the economic development of the province, its advance is retarded by the lack of public-spirited helpers; there are practically no contributions to the expenses of organisation and propaganda; each society pays a fee to the audit fund, but the income is insufficient to meet the growing expenditure. Government is willing to pay for a larger supervising staff, as the number of societies increases, but it cannot be expected to undertake responsibility for the whole cost of a movement which is supposed to be founded upon self-help. Moreover, the funds required to finance the members must be found by the societies, and progress in this direction measures the progress in the movement as a whole. For Government to guarantee to provide the necessary funds would be to deprive all concerned of the incentive to bestir themselves in their own interests; it is right that those who desire to organise themselves into new societies should experience the need for self-help as a precedent to enjoying the advantages of mutual help. The sum required to finance agricultural operations in the province cannot be less than thirty crores; and the accumulation of this sum is not the work of a few years. On the whole progress in the Punjab compares well with the growth of the movement in other provinces of India, and in countries outside. All indications point to a rapid advance when the present period of scarcity passes away.

VETERINARY AND LIVE-STOCK.

Cattle disease and mortality.

227. The striking decrease in mortality among cattle generally (25,200 deaths as compared with 56,089 in the previous year) was due to the dry season, but the percentage of mortality to cases treated was relatively high owing to the poor condition of the animals attacked by disease. Amongst equines no cases of glanders, anthrax or dourine were reported and the number of deaths from surra fell from 65 to 37. The most serious losses from rinderpest among bovines occurred in the Multan, Muzaffargarh and Lahore Districts, but the total number of deaths was only just over a third of the previous year's figure. Thanks to the persistent propaganda work of the department, public feeling is steadily overcoming old prejudices and anti-rinderpest inoculations are increasing in popularity. There was a very large diminution in deaths ([illegible]01 against 2,592) from foot-and-mouth disease and a drop of thirty per cent. in casualties from hæmorrhagic septicæmia ; in the prevention of the latter disease vigorous measures of inoculation and vaccination were undertaken.

Veterinary College.

228. Eighty students were admitted to the College for the three years' course, against 81 in the previous year; out of these 39 belong to the Punjab. The results of the annual examinations were very satisfactory, the percentage of passes in each of the three years being over 80. Owing to the deputation of some of the officers attached to the College for training elsewhere, no post-graduate classes could be held, and with the impending introduction of a four years' course in English it is proposed to institute a post diploma course, by which students, who have obtained their diplomas under the old system, will attend lectures on additional subjects in the third and fourth years under the new system, thus qualifying themselves for higher posts that may fall vacant. The question of raising the value of many of the existing scholarships in the College is under consideration. The number of patients was practically the same as in the previous year, and that of out-patients slightly smaller. Thirty-one dogs were subjected to anti-rabic treatment. The income during the year rose from Rs. 20,612 to Rs. 21,567, while expenditure increased, owing to enhancements of pay and to the high price of requisites from Rs. 1·34 lakhs to Rs. 1·41 lakhs.

Veterinary hospitals.

229. Eight new hospitals were opened during the year, and there are now in the province 139 hospitals and 5 dispensaries. The addition of these hospitals, with more to follow in the near future, is a proof of the steady growth of appreciation of the department's work on the part of the Punjabi peasant, and it is interesting to note that the Lyallpur District Muslim Zamindars' Association recently passed a resolution requesting that a veterinary hospital should be opened in each *zail* of the district. District boards, too, have promised to supplement Government grants from their own resources, so that, with the aid of private contributions obtained from local subscribers, it should be possible to proceed more energetically with the work of constructing new veterinary hospitals and of improving those which already exist.

Cattle-breeding.

230. With 261 additions and 173 casualties the total of stud bulls advanced from 1,252 to 1,440. A record number (239) of Hissar bulls was issued to districts from the Hissar farm, notwithstanding the severe shortage of fodder which made it necessary for certain district boards considerably to curtail their indents. The serious decrease in the number of cattle in the province has caused a revival of interest in cattle-breeding, but efforts have been hampered through want of funds. Attention is being directed to the gradual disappearance of the valuable Montgomery milch breed of cattle, and also to the necessity for closer co-ordination of interests between the military dairies and the cattle-breeders in dealing with this breed, which is largely sought after for milking purposes.

Government Cattle Farm, Hissar.

231. The farm had a distinctly unfortunate year, shortage of rain being accompanied by severe outbreaks of disease, a most unusual combination. Nevertheless, demand for farm stock continued keen, and total receipts amounted to the record sum of Rs. 2·02 lakhs. The highest price realised for a pair of bullocks was Rs. 650. The period of acute fodder famine began in November; stock generally at that time were in good condition, owing to the fact that the little rainfall was concentrated into a period between the 25th of July and the 4th of August. These few wet days were sufficient to cause a growth of short grass and stock had grazing for about seven weeks.

Camel Specialist, &c.

232. An increase of staff was sanctioned during the year and an assistant from the Pathological Entomologist's office at Pusa was deputed to the Punjab in order to assist in surra transmission experiments and other entomological work. Of the various methods of intravenous injection of tartar emetic into camels, two gave a percentage of cures of over 70, and this simple and inexpensive treatment will be further investigated. Ninety experiments were carried out with different species of tabanidæ to ascertain (*i*) the transmitting agent of surra, and (*ii*) whether surra is spread by direct transmission or whether there is a cyclical development in the transmitting agent; but it has not yet been possible to reach any definite conclusions. In the treatment of mange the best results have been obtained by the application of *taramira* oil. An examination of a large number of goats showed the wide prevalence of hypoderma larvæ, which damage the hides and cause a great depreciation in their value. Reports on this subject as well as on the spirochæotis of fowls, which can be cured in the early stages of the disease by injections of soamin, have been published as bulletins of the Department of Agriculture.

27-A.—Fisheries.

Regulations.

233. The Fisheries regulations are now in force in Kangra, Gurdaspur, Jullundur, Hoshiarpur, Amritsar, Ludhiana, Ambala and Ferozepore, while draft regulations have been submitted to Government for the districts of Lahore, Sheikhupura and Montgomery. Propaganda work to explain the objects of the regulations was continued by the officers of the department, and a pamphlet explaining the aims and objects of the department was distributed through the Punjab Publicity Committee. The regulations in the States of Mandi, Suket, and Kapurthala are working satisfactorily.

General.

234. On account of continuous drought the rivers became very low in the winter, and the catches of the fishermen in the late winter and spring were rather below average. A second fish-ladder was constructed at the Rupar weir. Rewards have been sanctioned for the destruction of fish enemies (cormorants, otters and crocodiles, etc.) Some murral have spawned at Madhopur and the fry are being kept for stocking purposes. Efforts

to eradicate the weeds out of the Sirkian tank have so far not been successful. The Warden has been deputed to locate the spawning grounds of carp and to make observations of the life history of the species in natural breeding-grounds.

Culture.

235. Trout culture in Kulu is progressing satisfactorily, and the yield of ova and fry exceeded that of the previous years. It has been reported by some experienced anglers that Kulu trout take fly as readily as any trout provided the flies are of the right kind and size. Trout ova were planted in the Kangra and Chamba streams again this year.

Staff.

236. Out of the six sub-inspectors sanctioned for the plains districts four were appointed ; the remaining two will be appointed as soon as rules for Lahore, Sheikhupura and Montgomery are issued. The expenditure of the department was Rs. 31,439 against an income of Rs. 32,300.

28.—Weather and Crops.

Character of the season.

237. Except near the hills and in a few of the central districts rainfall was scanty in January. It was also deficient in February and March except in montane and sub-montane districts, while April was practically dry everywhere. Thus the season was not as favourable as in the preceding year for the sowing of cane and cotton. In May, rainfall was generally above normal, and both cane and cotton were considerably benefited. In the case of the latter further sowings were also effected. The monsoon set in at the end of the third week of June, and gave a fair amount of rain in parts of the south-east Punjab and in some montane and sub-montane districts, but elsewhere there was only light rain or none at all. It was very weak in July and August when it practically failed to penetrate the south-western districts, the total rainfall of these months being below normal nearly throughout the province. In September also, rainfall was in defect almost everywhere, autumn crops in consequence being sown under unfavourable conditions. October, November and December were rainless, with the result that autumn crops were considerably damaged and only a comparatively small area could be sown with spring crops. Light rain, however, fell in small areas in the second and third weeks of January and the beginning

of February. This was useful as far as it went, but was late and entirely insufficient, especially for unirrigated crops. No rain fell during the remainder of February and the whole of March, so that spring crops, especially unirrigated, were severely damaged. In the latter month, some damage was also done by high and hot winds. Except for some light and scattered showers, April remained dry and harvesting operations were in consequence not appreciably interfered with. Rivers were running low and in canals the supply was short particularly in the Lower Bari Doab Canal. Canal closures were also more frequent and prolonged than usual. In Mianwali the Kurram Canal worked well, but in the Namal Canal the supply was much restricted. In Multan the inundation canals opened later and closed earlier than usual, and the same was the case in the Muzaffargarh District except as regards the Maghasan Canal in the Sinawan Tahsil. In Dera Ghazi Khan the inundation canals began to flow in May, and their supply continued full and steady up to August when it practically ceased. The hill torrents of this district flowed only in June and July.

Sown and matured areas.

238. The sown area decreased by 16 per cent. as compared with the preceding year and by 15 per cent. as compared with normal. The matured area decreased by 32 per cent. as compared with the former and by 29 per cent. as compared with the latter. The percentage of the total area sown on the normal area varied in different districts from 59 to 116. It was remarkably low in Hissar (62), Rohtak (75), Gurgaon (72), Karnal (75), Jhelum and Attock (59) and remarkably high in Gujranwala (104), Sheikhupura (105) and Montgomery (116).

Irrigated area.

239. Irrigated sowings increased from 45 per cent. of the total in 1919-20 to 54 per cent. in the year under report. As compared with the preceding year there was a considerable increase in the area irrigated from wells and a substantial decrease in the area irrigated from Government and private canals, tanks and other sources. Of the total irrigated area 64 per cent. was watered from Government canals and the rest from private canals and other sources.

Outturn of chief crops.

240. *Wheat.*—The total area sown declined from 8,812,803 acres to 7,751,103 acres, or 12 per cent. below the preceding year and

16 per cent. below normal. The decrease was confined to unirrigated area, irrigated area showing an increase of 2 per cent. as compared with the preceding year. The yield was adversely affected by bad monsoon, the failure of the winter rains and the hot winds of March. The percentages of the estimated actual outturn per acre on the normal varied from 35 to 100 on irrigated, and from 25 to 85 on unirrigated area. The total outturn (taking into account the revised figures of area reported from some of the districts after the submission of the final forecast) was 2,030,643 tons, or 27 per cent. below normal, Gujranwala and Sheikhupura being the only districts above the average.

The total outturn of the other principal crops, as compared with the estimated normal outturn, is given below :—

Name of crop.	*Outturn in percentage on estimated normal.*
Rice	98
Barley	34
Jowar	110
Bajra	68
Maize	90
Gram	40
Rabi oilseeds	58
Sugarcane	96
Cotton	165

Prices, trade and food-stock.

241. Owing to the failure of the monsoon and winter rains and the consequent unsatisfactory outturn of both the *kharif* and *rabi* harvests, the prices of all the principal crops, except rapeseed and cotton, were higher in the year under report than in the preceding year. The most remarkable increases occurred in the average prices of wheat, barley, gram and raw sugar, which respectively rose from Rs. 4-15-0, Rs. 3-11-0, Rs. 4-13-0 and Rs. 7-9-0 per maund to Rs 6-10-0, Rs. 4-15-0, Rs. 6-5-0 and Rs. 9-1-0 per maund. The average price of rapeseed fell from Rs. 9-9-0 to Rs. 9-7-0 and of cotton from Rs. 13-5-0 to Rs. 8-7-0 per maund. As compared with the preceding year there was an increase in the exports of wheat, gram and rice and a decrease in the exports of *jowar*, *bajra* and cotton, while less sugar was imported. Stocks of food-grains were reported to be generally insufficient. In some districts it is said that stocks were held up to keep prices high.

29.—Horticulture.

Lawrence Gardens, Lahore.

242. Climatic conditions were generally unfavourable and caused the loss of a number of young fruit trees under process of grafting. For the same reason exhibits at the annual chrysanthemum and spring shows were comparatively few in number and not of the highest qualities, but notwithstanding the inclemency of the weather the general appearance of the Gardens did not suffer. Amongst improvements carried out during the year mention should be made of the erection of the new Victoria Gate, opposite the Charing Cross post office, and of the filling up of the insanitary pond near the hockey ground. Larger quantities than usual of chrysanthemums were supplied to Bikaner State. Aggregate receipts amounted to Rs. 44,617 and expenditure to Rs. 41,683, the credit balance in hand at the close of the year being Rs. 2,934. The arboriculture classes were attended by 33 students.

30.—Forests.

Alterations in area.

243. The area controlled by the Forest Department was reduced by 188 square miles to 6,626 square miles. One hundred and seventeen square miles were disforested for colonisation in the Multan and Chenab Forest Divisions. The classification of the forests is now as follows :—

		Square miles.
Reserved	... ...	1,701
Protected	... ...	4,036
Unclassed	... ...	530
Leased	.. ..	359
Total	...	6,626

Forest settlements.

244. No new settlements were actually completed during the period covered by this report, but that of the Daphar Plantation was nearing completion, and has since been completed, while the Sutlej Valley Settlement, Bashahr Forest Division, has been sent to the press. The latter, however, does not include the high level pine and fir forests, the work having been postponed until more staff becomes available.

245. The alterations necessary in the Kangra working plan could not be completed before the close of the year. A beginning has been made with the Kalesar working plan in the Simla Division. The browsing schemes for the 52nd and 53rd Silladar Camel Corps were brought into force during the year, but that for the 54th Silladar Camel Corps is still under consideration.

Working plans.

246. The total number of offences reported was less than in the previous year by 842 and less than the average of the last three years by 956. The decrease, however, is fictitious owing to the fact that the report covers a period of only nine months. The total area of forest burnt was 14,215 acres. The divisions which suffered most from fires were Kulu, Multan, Bashahr and Lahore. In the two first-named most of the area was burnt through intentional firing. The area open to all grazing decreased from 5,432 square miles to 5,240 square miles owing to disforestation of areas for colonisation in the Multan Division. Drought was the predominating cause of injury to forest crops throughout the province, damage by snow in the high hill forests being slight.

Protection.

247. Existing reproduction has suffered generally from the unusual drought. Kulu reports damage to the deodar regeneration which followed the seed year of 1918, while younger seedlings were killed in large quantities. In Rawalpindi, *chir* seedlings under three years old are reported to have been destroyed, and the production of new bamboo shoots in the Hoshiarpur Division was on the whole abnormally poor. Kail regeneration in Bashahr is very satisfactory and that of silver fir in Kulu, wherever a clean seed bed was obtained, is excellent. It is also good in Chota Banghal. The reproduction of deodar seed was very variable, parts of Kulu and Dharmsala having a fair crop. *Chir* seed was generally deficient. The total area sown up to the end of the year in irrigated plantations was 7,441 acres as compared with 7,094 acres at its beginning. The quantity of water received was generally deficient, though up to the end of the period under report sowings were generally successful. The total expenditure incurred on, and revenue derived from, the five newer plantations have been Rs. 3·44 lakhs and Rs. 8·15 lakhs respectively.

Natural and artificial reproduction.

Exploitations.

248. The outturn of all classes of produce compares as follows with the average of the three preceding years. The comparison is, however, not quite accurate, because the figures for the year under report are actually for nine months only :—

—	TIMBER.	FIREWOOD.	MINOR PRODUCE.
	Thousands of cubic feet.	Thousands of cubic feet (stacked).	Value in lakhs.
1920-21	2,578	2,584	20·45
Average 1917-18 to 1919-20.	1,646	2,245	13·86

The extraction of all valuable timber is now being carried out departmentally and only small trees, the result of thinnings in remote localities in the plains rakhs, are sold standing and converted by purchasers. The quantity of timber extracted will undoubtedly increase steadily with the introduction of more intense systems of management under revised working plans and with improved methods of extraction. 35,541 maunds of resin were collected as compared with 38,427 maunds last year. In addition 3,544 maunds of resin were purchased from Kashmir and Hazara. 26,782 maunds of resin were distilled, against 35,656 last year. The total quantity of turpentine obtained from primary distillation was 54,219 gallons. The proportion of quality 1 turpentine obtained on re-distillation increased from 1·49 to 1·56 gallons per maund of resin, a result due to the application of laboratory control tests throughout the year, whereby standard turpentine is produced. The average price obtained for resin was Rs. 17-8-0 per maund as compared with Rs. 17-4-0 last year and that for turpentine Rs. 5-12-0 per gallon as compared with Rs. 5-11-0. At the close of the year, however, there was a very marked fall in prices.

Miscellaneous.

249. The scheme of reorganisation of the Forest Department of the Punjab, which provided for the additional posts of Chief Conservator and a Utilization Conservator, was sanctioned at the close of the year and the posts were created with effect from

11th March and 23rd February 1921, respectively. The formation of a separate afforestation division of the Pabbi Range of the Chenab Forest Division is under the consideration of the Local Government.

Timber works and labour.

250. Owing to scarcity of food in the hills labour supplies have been better than usual during the year. Thus the output of Kulu Division is roughly three times the average quantity extracted before the introduction of departmental working; and the Bashahr output has increased from 24,000 cubic feet last year to 60,000 cubic feet in the period under report. Large advances have still to be given to induce men to come on to the work, with the result that the Forest Department is still largely at the mercy of its labour force. It is hoped that it will be possible to arrange for a timber traders' association to protect employers of forest labour from the dishonesty of contractors who have no compunction in taking a fresh advance from a second trader before they have finished with the first. The extraction of timber from Kulu and Bashahr begun last year is now being satisfactorily organised.

Rates and prices.

251. Timber prices reached a high level during the winter of 1920, and then slumped badly towards spring in sympathy with the prevailing general trade depression.

Mechanical means of transport.

252. A tramway is under construction in Changa Manga and some three miles were completed by the end of the year. The construction of the Simla-Narkanda ropeway is still under consideration. The so-called Donald's ropeways with fittings completed and remodelled by Major Chipp are proving extremely profitable. Eleven such ropeways have now been obtained and eighteen more are on order.

The Oleo-resin industry.

253. The period under report was characterised by considerable progress in standardisation of the Jallo resin and turpentine, and the high quality of these products has not only been maintained but improved. Jallo products are now well established on the Indian markets.

Financial results.

254. The financial results are given in section 43; the year's working shows a surplus of Rs. 18·56 lakhs and a cash surplus of Rs. 2·35 lakhs,

against Rs. 14·30 lakhs last year and against an average of Rs. 9·09 lakhs for the preceding five years.

31.—Mines and Quarries.

Mines.

255. The total number of collieries and other mines coming under the Mines Act worked during the year under report was 30. Of these 4 are Government salt mines, 15 collieries (12 in Jhelum, 2 in Mianwali and one in Shahpur) and 11 are slate, lime and stone mines (3 in Gurgaon, 2 in Gurdaspur, 5 in Kangra and 1 in Hoshiarpur). The Kathlug slate quarry, Dalhousie, was not worked at all throughout the year. The mining lease case of Lala Ishar Das in respect of 182·45 acres of land in Rakh Dandot for coal is still pending on account of a report from the Salt Department, as a part of this area coincides with the area reserved for the Khewra water-supply.

256. The total amount of mineral raised and its value as compared with 1917, 1918 and 1919 are as follows :—

——	MINERAL, IN TONS.				VALUE, IN RUPEES.			
	1917.	1918.	1919.	1920.	1917.	1918.	1919.	1920.
Coal ...	49,868	48,587	39,894	58,077	3,76,192	5,70,281	3,62,166	7,10,740
Salt ...	152,360	158,512	174,974	181,092	3,88,809	4,04,539	4,60,575	6,16,217
Slate, stone and lime-stone.	8,860	8,482	9,076	17,359	1,07,913	1,31,370	1,33,256	1,24,398
Potash ...	181	134	83	50	928	687	421	[illegible]

Except in the case of potash there has been an increase in the output of every mineral as compared with 1919. The health of the operatives has generally been good and sanitation sufficient. At the Warcha Salt Mine, however, small-pox broke out during the months of January to March 1920 and accounted for some deaths. Wages have increased considerably and there has been a great dearth of labour. The rise in wages is in consonance with the increase in the cost of living.

Other minerals.

257. Minerals which do not come under the Mines Act are :—Gold (by washing), petroleum, alum shale, block kankar, lime-stone, gypsum, antimony, building-stone, and stone of sorts. The outturn and value of these minerals during the year were as follows :—

District.	Name of mineral worked.	Total amount of mineral raised.	Total value of mineral at the mine.
			Rs.
Ambala ...	Gold (by washing) ...	5 29/160 oz.	349
Jhelum ...	Ditto ...	140 tolas	3,925
Attock ...	Petroleum ...	50,640 gallons	9,495
Mianwali ...	Ditto ...	852 „	213
Jhelum ...	Lime-stone ...	26,756 tons	62,432
Do. ...	Gypsum ...	7,378 „	17,218
Do. ...	Antimony ...	10 seers	400
Ambala ...	Block kankar ...	476 tons	533
Mianwali ...	Alum shale ...	6,851 „	10,200
Simla ...	Building-stone ...	234,400 c. ft.	2,344
Jhelum ...	Stone of sorts ...	1,203,177 c. ft.	48,069

32.—Industries and Manufactures.

General.

258. The Department of Industries, now under the control of the Ministry of Agriculture, has made a promising start since its inauguration in the year preceding that now under report, notwithstanding the unfavourable circumstances of an uncertain exchange, restricted railway facilities and shortage of coal supply. The appointment of six industrial surveyors to travel constantly through the province and keep the Director in touch with local industries was sanctioned as a tentative measure during the year. Only a small amount of chemical research work was possible, and the future of this branch of the department's activities will depend upon the decision of the Government of India regarding the formation of a chemical service for the whole of India. At present the department employs a mechanical engineer, a tanning

superintendent and a dyeing research assistant, whose services are obtainable in cases approved by the Director. Rupees 3·7 lakhs were budgetted for the year and most of that amount was spent.

Institutions.

259. Among existing institutions Government has under consideration the improvement of the Central Museum and Mayo School of Arts at Lahore. Five weaving schools have been opened—a central school at Amritsar and four others in Multan, Sialkot, Jalalpur Jattan and Sham Churasi—and instruction in these schools has been put on a scientific basis. The district advisory boards have worked well and the establishment of a central advisory board is being considered.

Factories.

260. The total number of factories registered under the Factories Act increased from 247 to 285, new factories including one woollen mill, two ice factories, twelve cotton-ginning factories, nine baling presses, a glass works, an oil mill and an aeroplan work-shop. The average number of persons employed rose from about 39,000 to 42,500. Considerable labour unrest was evident, especially in large centres: the employees in almost all the railway workshops went on strike for over two months, and a strike also took place in the Bhiwani Spinning Mills

The Factories Act.

261. The administration of the Act suffered owing to the untimely death of Mr. Taffs, the late Inspector of Factories. While water-supply and sanitary conditions were generally satisfactory, ventilation in cotton-ginning factories was often insufficient. The health of operatives was good and no epidemics occurred during the year. There were 239 accidents (as compared with 241 in the previous year), of which 14 were fatal and 23 classed as serious.

33.—Trade.

Rail and River-borne Trade.

Net Imports.
(a) Increases.

262. There were marked increases in both the volume and value of some articles. The net imports of coal and coke, for purposes not connected with railways, advanced by 19½ lakhs of maunds in weight and Rs. 61¼ lakhs in value, owing to the increased requirements of the cotton ginning

and pressing factories. Indian piece-goods increased by 4 lakhs of maunds in weight and Rs. 643 lakhs in value, owing to the *swadeshi* movement. Cotton seeds increased by 22 lakhs of maunds in weight and Rs. 64¼ lakhs in value, owing to fodder scarcity. The net imports of bars, sheets, girders, etc., increased by 6¼ lakhs of maunds in weight and Rs. 105½ lakhs in value, of railway materials (other sorts) by 4¾ lakhs of maunds in weight and Rs. 78⅔ lakhs in value, of timber (excluding railway sleepers) by 9¼ lakhs of maunds in weight and Rs. 53¾ lakhs in value, and of machinery and mill work by a lakh of maund in weight and Rs. 22¾ lakhs in value. The net imports of gunny bags, cloth, fresh fruits and vegetables also increased in volume, though not in value. The chief increases in value were of (1) apparel, Rs. 12 lakhs; (2) other cotton manufactures, Rs. 30 lakhs; (3) wine and spirits (imported), Rs. 38½ lakhs; (4) hardware and cutlery, Rs. 21¼ lakhs; (5) paper and paste board, Rs. 20¾ lakhs; (6) dried fruits and nuts, Rs. 49¼ lakhs; (7) ghi, Rs. 48 lakhs; and (8) woollen piece-goods (foreign), Rs. 13½ lakhs.

(*b*) Decreases.

The chief decreases in net imports were :—

Name of article.	Weight in lakhs of maunds.	Value in lakhs of rupees.
Twist and yarn, foreign	3·50	15¼
Do. do., Indian	1·5	10¾
Piece-goods, foreign	2·5	127¾
Hay, straw and grass	11·5	15
Brass, manufactured	7·1	12¼
Kerosine oil	2·25	18¼
Gur, rab, etc.	3·75	15¼
Rice not in the husk	5·25	69

The fall in exchange and the *swadeshi* movement are responsible for the decrease in twist and yarn and foreign piece-goods. The decrease in the latter is more than counterbalanced by an increase under Indian piece-goods. There was a general scarcity of fodder in the year under report, but the imports of hay, straw and grass neither in volume nor in value were as great as last year. This is due to the fact that these articles were imported in unusually large quantities in 1919-20. The decrease in brass (manufactured) was caused by high-prices and that in rice by restrictions imposed on its export to other provinces, while

the decrease in kerosine oil is due to large imports in the preceding year. The outturn of *gur* was above normal in the preceding year and about normal in the year under report and consequently there occurred a decrease in the imports of *gur*, *rab*, etc. The net imports of sugar (refined and unrefined) and coal and coke for railway purposes also declined in volume but increased in value by Rs. 11½ and Rs. 5¾ lakhs, respectively.

Net exports.
(*a*) Increases.

263. The most important increases were :—

Name of article.	Weight in lakhs of maunds.	Value in lakhs of rupees.
Wheat	144	751½
Woollen piece-goods, Indian	2·25	13

The increase in the net exports of wheat was due to the fact that the outturn of the spring harvest of 1920 was above normal and that, owing to very small exports of wheat in the preceding year, there was a large demand for its export in the year under report. The *swadeshi* movement, coupled with very small exports of Indian woollen piece-goods in 1919-20, led to an increase in their exports this year.

(*b*) Decreases.

The principal decreases were :—

Name of article.	Weight in lakhs of maunds.	Value in lakhs of rupees.
Raw cotton	7 75	574¼
Gram and pulse	2	96
Jowar and bajra	7·5	46½
Other food-grains	2	24
Hides of cattle (raw)	2 5	81½
Skins of sheep, etc. (raw)	1·25	14¼
Ale and beer (Indian)	·5	18¼
Rape and mustard seeds	24·25	154½
Raw wool	1·5	48½

The decrease in food-grains was due to the imposition of Government control upon their exports ; and in ale and beer (Indian), to the export in large quantities in preceding years.

The restricted foreign demand is responsible for the decrease in other articles.

Treasure.

264. The net imports of gold bullion increased by Rs. 54½ lakhs and those of silver bullion by Rs. 92¾ lakhs owing to low prices. The net imports of silver coin fell by Rs. 203¼ lakhs.

Distribution of trade.

265. Karachi was the province's best customer and its share of the Punjab exports increased from 31 per cent. in 1919-20 to 34 per cent. in 1920-21 owing to heavy exports of wheat. The other chief customers were the Bombay Port and the United Provinces. Exports to the former decreased from 20 to 10 per cent., while those to the latter advanced from 16 to 18 per cent. Imports from Karachi and Bombay increased from 18 and 16 per cent. to 21 and 20 per cent., respectively, and those from the United Provinces and Calcutta fell from 22 and 16 per cent. to 18 and 12 per cent., respectively. Among the internal trade blocks of the province, the share of the Cis-Sutlej territory (excluding Delhi City) remained steady at 31 per cent in total imports and decreased from 43 to 36 per cent. in total exports, while that of the territory between the Sutlej and Jhelum rivers decreased from 38 to 36 per cent. in total imports, but increased from 37 to 50 per cent. in total exports.

TRANS-FRONTIER TRADE.

Volume of trade.

266. As compared with the year 1919-20, total imports (excluding treasure) declined by 3,834 maunds in weight but increased by over Rs. 11·14 lakhs in value, while the corresponding figures for increase of total exports were 1,965 maunds and Rs. 2·85 lakhs.

Trade with Afghanistan—Imports.

267. Total imports increased by 2,476 maunds in weight and by Rs. 80,472 in value. Owing to discontinuance of trade relations of Afghanistan with Russia, podina, zofa, raisins and almonds could not be exported from the former to the latter and consequently a large import of them was made into the Punjab. This accounts for an increase of 1,844 maunds in weight and Rs. 54,664 in value under fruits, vegetables, etc. There was an increase of 216 maunds in weight and Rs. 22,680 in value under *ghi* and of 228 maunds in weight and Rs. 3,648 in value under wool. As some of the

Afghan tribes were on hostile terms with the Suleman Khels in the Dera Ismail Khan District, the trade in these articles was diverted to the Dera Ghazi Khan route.

Exports.

268. Exports increased by 2,916 maunds in weight and by Rs. 1,44,389 in value. Under leather (manufactured and unmanufactured) there was a decrease of Rs. 14,040 in value owing chiefly to heavy mortality in Afghanistan and the consequent increase in the local supplies of leather. No unrefined sugar was exported during the preceding year, and the exports of refined sugar were also comparatively small. It was therefore necessary to export a comparatively large amount of sugar (both refined and unrefined) during the year under report. The total amount exported was 1,172 maunds, valued at Rs. 29,810. The discontinuance of Russian imports into Afghanistan and the countries commanded by the Afghanistan trade was chiefly responsible for the increase of 212 maunds in weight and of Rs. 33,920 in value under European piece-goods, and of 536 maunds in weight and Rs. 71,500 in value under Indian piece-goods.

Trade with Central Asia—Imports.

269. Imports declined by 3,337 maunds in weight but advanced by Rs. 9·55 lakhs in value. Under sheep and goats there was an increase in number and in value owing to an increased demand. In respect of *charas* there was a decrease of 55 maunds in weight but an increase of Rs. 1·67 lakhs in value—the advance in value being due to an attempt on the part of the Hoshiarpur licensed-vendors to secure a monopoly of the trade by outbidding other purchasers. Raw silk showed an increase of 681 maunds in weight and of Rs. 8·16 lakhs in value, owing to a rise in the price of silk in the Punjab and an unusually large production of it in Khutan. Under all other articles of manufactured merchandise there was a small increase in value, thanks to a rise in prices in the Punjab. Raw wool decreased by 2,126 maunds in weight and a little over half a lakh in value, the trade in this article being interfered with by floods and the demand being small.

Exports.

270. Exports increased by 269 maunds in weight and Rs. 1·42 lakhs in value. The recent expansion of weaving and other industries in Yarkand has resulted in a considerable increase in the

export of European cotton twist and yarns, indigo and paints and colours to that country. Partly for the same reason and partly because of the rise in their prices in India, the export of cotton piece-goods (European and Indian) has fallen. An increase under medicines and drugs and other spices was due to carriage rates from Leh to Yarkand being cheaper than in the preceding year. The rise in value under manufactured silk was accompanied by a decrease in weight. Velvet and satin, the principal articles of export, are now not only scarce in Indian markets but also are less in vogue in Yarkand. The decrease under unmanufactured leather was due to an increase in stocks caused by the comparatively heavy exports of the preceding two years. All other articles of merchandise were comparatively cheap in the Punjab and consequently there was a larger demand for them in Leh and Yarkand.

Trade with Tibet.

271. There was a decrease of 2,973 maunds in weight but an increase of Rs. 78,618 in value under imports, and a decrease of 1,220 maunds in weight and of Rs. 1,921 in value under exports. In the case of the former the principal variations were under borax and raw wool, the decrease (1,854 maunds) in the former being due to the high cost of production. Under wool there was an increase of 804 maunds in weight and of Rs. 1·38 lakhs in value, but it is possible that the imports were not correctly registered. The principal variations in export were under European cotton piece-goods, Indian cotton piece-goods, and brass and copper. Owing to their comparative cheapness Indian cotton piece-goods have been for some time replacing the European article in the Tibet trade, and the process has now gone so far that in the year under report there were no exports of the former, while the exports of the latter increased considerably.

Treasure.

272. As compared with 1919-20 there was a decrease of about Rs. 8 lakhs in the balance of trade in favour of the Punjab. The decrease in the net import of treasure was, however, much smaller. No gold (bullion or coin) was exported and the import of gold from Central Asia declined by over half a lakh. Imports of silver decreased by Rs. 2·43 lakhs and exports by more than Rs. 80,000. Russian paper money to the value of Rs. 68,292 was re-exported owing to the prohibition of its import into the Punjab.

JOINT STOCK COMPANIES.

273. Although the number of registered companies increased by 18, there is still little sign of any growth of healthy joint stock enterprise. Of 23 new companies not less than 14 were for trading and 3 for banking. Only 2 could be described as industrial. Paid-up capital rose by Rs. 29·7 lakhs to Rs. 354 lakhs. Three companies went into liquidation and 2 were struck off as defunct. The public of the province seem as yet disinclined to invest their capital in this form of association, and it would appear that the essentials required for success in joint stock undertakings are imperfectly appreciated. There is nothing worthy of note to record regarding the progress of insurance companies.

34.—Buildings and Roads.

Total expenditure.

274. The total outlay for the year 1920-21 and for 1919-20 are given in the following table:—

(In thousands of rupees.)

	1920-21.	*1919-20.*
(1) Imperial Military Works ...	92	81
(2) Imperial Civil Works ...	6,67	5,67
(3) Provincial Civil Works ...	1,10,40	90,91
(4) Contribution (including local loans, etc.)	5,09	4,25
Total ..	1,23,10	1,00,93

The percentage cost of establishment to the total cost of works and repairs executed comes to 11 against 14·0 per cent. for the preceding year.

General.

275. The restriction on railway booking and the difficulty in procuring a sufficiency of coal continued to hamper the progress of works, while on the other hand the prices of building material increased and labour refused to accept lower wages owing to the dearness of foodstuffs. It is evident now that the prices of material and wages for labour have become more or less stabilised at a high figure. The difficulties regarding the lack, throughout the province, of reliable contractors continued to be felt.

Imperial Military Works.

276. No military work of importance was carried out during the year under review.

Imperial Civil Works.

277. The construction of the new telegraph and telephone office buildings at Simla continues. An expenditure of over Rs. 6¾ lakhs has been incurred against the estimate of Rs. 7·83 lakhs. The whole of this new structure may be described as a masonry shell—the lower storey in stone, the upper in brick—held together by continuous reinforced concrete lintels. Considerable savings have been effected in the thickness of the reinforced concrete floors by making many of the partition walls self-supporting and this design enabled parts of the building to be brought into use as a telephone exchange, workshops, offices, and living quarters, before any part of the roof had been completed. A five years' programme of special repairs to Viceregal Lodge at Simla has been satisfactorily completed. The project for the new buildings for the Wireless School awaits sanction; meanwhile a plot of land, just outside Rawalpindi itself, on the Rawalpindi-Peshawar Road, has been acquired and demarcated with boundary pillars.

Provincial Civil Works.

278. *Administration.*—The most notable work carried out under this head is the temporary Council Chamber at Lahore. Orders for the preparation of the design were given in February 1920, and by the end of the following December the building was complete. Owing to the financial stringency which still prevails, building operations were practically suspended during the year in connection with the Lahore and Simla housing schemes. Similarly the project of a new Secretariat at Charing Cross in Lahore is still in abeyance. Good progress was made in the erection of buildings for all branches of administration in connection with the formation of the new civil district of Sheikhupura.

279. *Land Revenue Buildings.*—New tahsil buildings were completed at Okara and Karnal. A court house for the assistant sub-divisional officer at Pindigheb, a combined tahsil and thana at Kot Adu and civil residences for the sub-divisional officers at Alipur and Leiah in the Muzaffargarh District are among the Revenue buildings which were taken in hand and completed during the year.

280. *Agricultural Buildings.*—Various works have been carried out at the Punjab Agricultural College at Lyallpur. A workshop has been constructed for the agricultural engineer and a residence provided for the entomologist. An ample wire fencing has been put up round the botanical area, on which material has also been collected for extending the existing chemistry block. At Hissar the re-roofing of the cattle shed in the stable farm and the construction of a new veterinary hospital and quarters for the assistants and menials in the cattle farm have been completed. The agricultural station at Gurdaspur has now been provided with a large sarai for accommodating visitors and students, while the amenities of the Veterinary College at Lahore have been improved by the addition of a large play-ground for the use of its staff and students.

281. *Educational.*—A particularly fine hostel for the Government College at Lahore is under construction at a cost approximating to Rs. 6 lakhs. This building, which will accommodate 172 students, is to be equipped with electric lights and fans and with an up to-date sanitary installation. The scheme of construction allows for future extensions so as to accommodate a total of 192 students. Some 45 acres of land in the neighbourhood of Multan city have been acquired for a new Government College, and land has also been acquired for the proposed Government College at Ludhiana. The foundation stone of the European Training College at the Lawrence Asylum, Sanawar, was laid by His Excellency the Viceroy on the 28th October 1920. New school buildings for the Government high and normal schools at Multan were completed; a new building for the Government high school at Jhang was begun; buildings for normal schools at Lala Musa and Gakhar are under construction; and rapid progress was made on the boarding house for the normal school at Campbellpur. At the Government School of Engineering, Rasul, the addition of a new wing to the boarding house has increased the somewhat limited accommodation; a set of rooms was added to the principal's quarters to serve as a rest-house for visitors, an extra block of staff quarters has been erected, and the workshop of the school has been considerably extended.

282. *Jails.*—Various works were undertaken in connection with the Lahore jails: a school building as well as residential quarters for assistant jailors and the sub-assis-

tant surgeon have been constructed in the Lahore Central Jail, and a large barrack has been added to the Borstal Institution.

28?. *Police.*—Land has been acquired for a new police station in Ambala city. Police hospitals at Lower Dharmsala and at Dera Ghazi Khan have been completed. At Rawalpindi an extension has been made to the sowars' barracks and also certain additions and alterations have been effected in the Indian police officers' quarters in the police lines. A set of married quarters for constables was also added to the Multan police lines.

284. *Medical.*—A new tuberculosis hospital and enclosure have been added to the Lunatic Asylum building at Lahore and the new capacious laboratory for the Chemical Examiner to Government, Punjab, has been completed.

285 *Communications.*—The largest works in this direction have been the construction of road bridges, which were begun last year over the Chenab and Palkhu rivers at Wazirabad. The bridge (17 spans of 142 feet each) over the Chenab consists of girders supported on 18 wells (including two abutments) the progress on the sinking of which, during the period under report, has been entirely satisfactory. The smaller bridge of 3 spans over the Palkhu river is nearing completion. A masonry arch bridge of a single 65 feet span has been thrown across the Giri river at Chela in the Simla District, while the much-needed widening of the Leh Bridge on the Rawalpindi-Murree Road cost nearly Rs. 75,000. The task of improving and bridging gaps on the various sections of the Grand Trunk Road was continued. On the Beas section, two important gaps have been completed and another is well under way, while between Gujar Khan and Sahawar girder bridges have been built over the Bhai Khan and Bishan Dore ravines, and a reinforced concrete floor replaces the wooden platform of the Chablat bridge between Hasan Abdal and Burhan.

(i) Bridges.

The first instalment of a comprehensive scheme for the improvement of the Kalka-Simla Cart Road, to fit it for motor traffic, consisted in the widening and straightening of the sharper and dangerous corners. Similarly, the cutting of dangerous corners and the improving of the bridges and culverts on the

(ii) Roads.

Kasauli Road are also receiving attention. Work on the second section of the Larji-Mandi Road, which traverses an extremely difficult section of hill country abounding in precipitous cliffs, progresses rapidly. Improvements on the Multan-Loralai Road have made it possible to motor between Multan and Ghazi Ghat, right on to Fort Munro. The construction of the new cart road from Fatehjang to the oil-fields at Khaur is now nearing completion. The road connecting Lahore with Sheikhupura has been greatly improved and made fit for wheeled traffic.

Sanitation.

286. The water-supply at Dera Ghazi Khan continues under the management of the Public Works Department on account of the special difficulties encountered in maintaining the supply, which is now equivalent to an average of about 5·8 gallons per head per day. The 4 tube wells from which the supply is drawn tend to diminish in yield through the blocking of the strainer-tube with a deposit of calcium carbonate ; so far, no permanent remedy has been discovered by which this can be prevented, and recourse has to be had to the troublesome and expensive process of drawing up and re-sinking the strainer tube after scraping.

Drainage.

287. The Rupar drainage scheme was sanctioned for Rs. 2·43 lakhs and work was started in September 1919. The expenditure to the end of the financial year 1920-21 was Rs. 19,259. The difficulty in obtaining coal and water is hindering progress. Satisfactory progress was made with the Shujabad drainage scheme, which was started in June 1920 and is expected to cost about Rs. 20,000.

Electrical projects.

288. The survey of the Sutlej River hydro-electric project was proceeded with under Lieutenant-Colonel B. C. Battye, D.S.O., R.E., throughout the year. The detailed designs were finished and a very complete set of estimates worked out. The designs provide for a plant of 80,000 K. W. capacity feeding into a 132,00 volt transmission system, capable of supplying Delhi and Lyallpur, together with intermediate stations such as Lahore, Amritsar, Jullundur, Ambala and many others. The scheme, it is anticipated, will take about five years to complete, will cost eventually about Rs. 9 crores and will, it is hoped, pay in the neighbourhood of 9 per

cent. in the tenth year of operation. Licenses were granted to the General Electrical Company, Limited, for the supply of electricity in Rawalpindi and Lyallpur. Applications for licenses were received for Multan, Sialkot, Ferozepore and Gujranwala, but were not granted during the year. The Municipal Committee of Hissar have asked the Electrical Inspector to prepare a preliminary report on an Electric Supply Scheme for the town. A concession for developing power from four canal falls was granted to the Punjab Hydro-Electric and Industry Development Association. During the year under review the administration of the Electricity Act was transferred from the Public Works Department to the Director of Industries.

Establishment.

289. Owing to the reorganisation of the engineering establishment of the Buildings and Roads Branch the sanctioned cadre has been reduced from 43 to 33. One newly appointed assistant executive engineer joined the Buildings and Roads Branch during the year. Colonel B. C. Battye, R. E., continued to serve on deputation as Officer-in-charge, Sutlej River Hydro-Electric Project Division, and the staff of the division was increased by the appointment of Major R. N. Aylward, D.S.O., and Lieutenant A. Guthrie, R.E., in April and May 1920, respectively. The Punjab Engineering Service came into being with a sanctioned cadre of 24 assistant engineers. Eighteen appointments were made and these were partly filled by selected upper subordinates already in the department and two temporary engineers. Six vacancies in the cadre have been kept open for engineers trained at the Thomason Civil Engineering College, Roorkee. The pay of the service is Rs. 250—20—750, with an efficiency bar at Rs 550. Selected men in this service may be promoted to the Indian Service of Engineers, though such appointments will be rare.

34-A.—Railways.

290. The considerable restrictions on booking of goods on the North-Western Railway referred to in last year's report were to a great extent withdrawn during 1920-21, because the movements of military personnel and stores were much reduced. There was, however, a good deal of difficulty during the cold weather in obtaining sufficient wagons for goods traffic and this resulted in accumulations at the goods sheds of some stations, particularly in irrigated tracts of the pro-

vince ; by the end of March these accumulations had really disappeared. There was a strike on the railway in May and June of 1920, which caused some dislocation of traffic. Later in the year considerable improvements were made in the passenger services, but even so they were still admittedly inadequate for the large increase in passenger traffic which has developed.

35.—Irrigation.

291. The direct receipts and expenditure during the year amounted to Rs. 341·50 lakhs and Rs. 156·18 lakhs, respectively, as compared with Rs 331·46 lakhs and Rs. 128·51 lakhs for 1919-20, the average of the triennium ending 1919-20 being Rs. 300·06 lakhs and Rs. 133·42 lakhs. The expenditure, as divided between Capital and Working Expenses, was Rs 7·70 and Rs. 148·48 lakhs respectively. The former figure is the net expenditure after crediting the sum of Rs. 6·44 lakhs realised from sales of surplus tools and plant and from the colonists on account of cost of water-courses, etc., which was also expended during the year. Thus the total direct capital expenditure amounted to Rs. 14·14 lakhs, half of which was incurred on the improvements to the Lower Chenab Canal Head Works at Khanki and on the remodelling of the main line, branches and distributaries of the Lower Jhelum Canal; on other canals the expenditure does not call for any special mention. The indirect revenue, credited to the canals on account of enhanced land revenue, etc., amounted to Rs. 143·25 lakhs as against Rs. 133·59 lakhs for 1919-20, and Rs. 132·27 lakhs which is the average of the three years ending 1919-20.

General.

292. The total area irrigated by works of all kinds under the control of the Irrigation Department was 10,273,690 acres, showing a decrease of 182,968 acres as compared with the figure (10,456,658 acres) of the previous year and an increase of 681,509 acres over 9,592,181 acres, the average of the previous triennium.

Area irrigated.

293. The capital outlay (direct and indirect) incurred on canals classed as Productive Major Works was Rs. 8·04 lakhs. The total outlay to date is about Rs. 2,407 lakhs, including Rs 155 lakhs contributed by Native States. The net revenue earned by

Finance.

the Imperial Canals amounted to Rs. 326·80 lakhs, or 14·51 per cent. on the capital invested to date, *viz.*, Rs. 2,252·22 lakhs.

294. The areas irrigated by, and the financial results of, each of the Major Works are shown in the following table :—

Major Works.

1	2	3	4	5	6	7	
Serial No.	Name of Canal.	Area irrigated. (in thousands)	Gross receipts. (in lakhs of rupees).	Working Expenses. (in lakhs of rupees).	Net income. (in lakhs of rupees).	PERCENTAGE PROFIT ON CAPITAL OUTLAY. Excluding interest charges.	PERCENTAGE PROFIT ON CAPITAL OUTLAY. Including interest charges.
		Acres.	Rs.	Rs.	Rs.		
1	Western Jumna ...	819	(a) 37·94	17·76	20·18	11·27	8·09
2	Sirhind	1,706	(b) 47·67	15·04	32·63	12·63	9·45
3	Upper Bari Doab ...	1,177	56·48	17·32	38·86	17·31	14·07
4	Lower Bari Doab ...	853	51·48	16·01	35·47	15·68	12·35
5	Upper Chenab ...	601	28·90	17·98	10·92	3·09	— 0·16
6	Lower Chenab ...	2,396	169·33	22·73	146·60	44·33	41·08
7	Upper Jhelum ...	345	13·30	12·17	1·13	0·25	3·03
8	Lower Jhelum ...	823	43·83	10·61	33·22	19·16	15·83
9	Upper Sutlej Inundation Canals.	327	8·36	5·50	2·86	15·64	12·50
10	Sidhnai Canals ...	210	4·01	1·65	2·36	17·65	14·45
11	Indus Inundation Canals.	249	6·26	3·69	2·57	8·64	5·41
	Total ...	9,506	467·56	140·76	326·80	14·51	11·25

(a) Excludes Patiala State.

(b) Excludes Native States of Patiala, Nabha and Jind.

Minor Works.

295. On all the Imperial Minor Works not classed as Productive including the two canals for which capital and revenue accounts are kept, the net profit amounted to Rs. 3·23 lakhs, as compared with Rs. 5·42 lakhs in the previous year. There is only one Provincial Canal in operation, *viz.*, the Shahpur Provincial Canal on which the year's working resulted in a loss of Rs. 33,499.

296. A short note on the working of each canal is given below :—

MAJOR WORKS—CANALS IN OPERATION.

Western Jumna Canal.

297. From an agricultural and irrigational point of view the seasons were unfavourable. A little rain fell in February and March, except in the Hissar district. This helped the early *kharif* sowings. Light local showers were received in May. Between the last week of June and the first week of August good but unevenly distributed rain fell, but the monsoon then weakened and finally withdrew. This withdrawal created a most intense demand all over the canal. The *rabi* season was entirely rainless. The river supply, too, was abnormally low and distribution by rotation was resorted to throughout the season. The canal was in flow for 175 days in the *kharif* season and 182 days in the *rabi*. The total area irrigated, including the area irrigated in Patiala and Jind States, was 819,201 acres (409,984 acres in *kharif* and 409,217 acres in *rabi*), as compared with 854,982 acres (424,436 acres in *kharif* and 430,546 acres in *rabi*) during 1919-20, and 766,946 acres (382,236 acres in *kharif* and 3·4,710 acres in *rabi*). Under Imperial the gross receipts were Rs. 37·94 lakhs and the working expenses Rs. 17·76 lakhs, yielding a net revenue of Rs. 20·18 lakhs, or 11·27 per cent. for 1919-20, against 10·27 per cent., the average for the previous triennium. Considering the unfavourable conditions the result for the year compares not unfavourably with that of the previous triennium. The net revenue received by the Patiala State on their channels on the Sirsa Branch amounted to Rs. 1·99 lakhs, or 17·10 per cent. on the capital invested, as compared with an average of Rs. 2·(2 lakhs, or 17·32 per cent. for the triennium ending 1919-20, and Rs. 1·90 lakhs, or 16·28 per cent. in the previous year

Sirhind Canal.

298. Light monsoon rains began in June and were followed by good rainfall in July. There was a decline in August, the monsoon practically ceasing in the middle of that month. September was almost rainless and October, November and December were quite dry. The monsoon was therefore distinctly in defect. Owing to the keen demand all channels were worked up to the limit of their capacities and there was little complaint of shortage of supply. The canal was closed for only 2 days in the *kharif* season and not at all in the *rabi* season. The area irrigated by the British branches amounted to 1,073,108 acres, while that irrigated by Native States branches was 632,346 acres. The figures for the year 1919-20 and the average of the triennium ending 1919-20 were 1,004,917 acres and 814,842 acres, respectively, for the British branches, and 544,200 acres and 487,295 acres, respectively, for the Native States branches. The area (392,923 acres) irrigated by the British branches during *kharif* was the second highest on record, the previous highest being in 1919 when 403,647 acres were irrigated. The Native States branches showed the best results, the area irrigated during *kharif* and *rabi* taken individually and collectively beating all previous records. For the whole canal, too, the area irrigated was the highest on record. The net revenue earned by the British branches from all sources, after deducting Rs. 15·04 lakhs for working expenses, amounted to Rs. 32·63 lakhs, giving a return of 12·63 per cent. on the capital cost as against 11·63 per cent. in the preceding year. The Native States also had a prosperous year, having collected Rs. 26·15 lakhs or above ¾ of a lakh more than in the previous year.

Upper Bari Doab Canal.

299. The monsoon broke in July and the fall from June to September at Madhopur head-works amounted to 22·2 inches, against 30·19 inches during the corresponding period of the previous year and 46·52 inches in 1917. It was, on the whole, a very poor monsoon. Demand was very keen but supply in the river was insufficient. Rotation of outlets and minors had to be resorted to and branches were run by rotation as usual. Heavy rain fell in the first week of August and this was the only good fall during the monsoon in Amritsar and Lahore districts. The year was practically rainless from October to March and this had the effect of reducing *rabi* irrigation by about 75,000 acres, as compared

with the *rabi* area of 1919-20. The total area irrigated amounted to 1,176,922 acres (606,170 acres in *kharif* and 570,752 acres in *rabi*) against 1,252,583 acres in the previous year, the highest on record. It was, however, equal to the average of the previous six years and taking into account the unfavourable seasons was quite satisfactory. The net income was Rs. 38·86 lakhs, or 17·31 per cent. on the capital invested, as compared with 16·61 per cent. in 1919-20.

Lower Bari Doab Canal.

300. The canal was in flow for 330 days (173 days in *kharif* and 157 in *rabi*) against 322 days in the previous year. The demand for standing principal *kharif* crops being very keen and the rainfall poor, the sowing of *kharif* fodder was very much restricted and this affected the fodder conditions in the following *rabi* to a serious extent. The *rabi* season was very disappointing. Almost complete failure of the monsoon and of winter rains resulted in a low river and poor canal supplies. Not only did the irrigated area (852,638 acres) fall short of the preceding year by 16,794 acres but the situation with regard to fodder crops grew worse and extensive failure of crops occurred. The total area remitted during *rabi* gave the high percentage of 44·54 on the area irrigated. The progress of canal irrigation, as stated in previous reports, was still somewhat behind the project, which anticipated 877,908 acres to be irrigated during the year under review. The carrying capacity of the canal has been brought up to full authorised discharge (6,750 cusecs), but the area irrigated has yet to develope to full figures. This will be achieved by greater economy in use and better distribution of water and gradual improvement of the poor soil. The net revenue was Rs. 35·47 lakhs, as compared with Rs. 32·80 lakhs in 1919-20. The increase is due to development of irrigation.

Upper Chenab Canal.

301. The *kharif* season was one of the driest on record. Except for a few showers at the end of July and beginning of August there was practically no rainfall. The rice season began with the rain in the beginning of August and sowings continued till nearly the end of that month. The demand for canal water was intense and very high supplies were consequently run in the canal. The *rabi* season was also marked by an almost entire absence of rain. Owing to the

extraordinarily low state of both the Jhelum and Chenab rivers, the rotational programme of the Quintuple Canal system had to be enforced from the 28th September, instead of the 1st October as usual. The total area irrigated during the whole year was 601,347 acres as compared with 648,367 acres estimated in the Project. The latter is now within a very short distance of attainment, whilst Mr. Wood's forecast of 530,000 acres in the Completion Report has long been surpassed. The net revenue was Rs. 10·92 lakhs or 3·09 per cent. on the capital outlay as compared with 3·63 per cent. in the previous year, the falling off being due to the canal being, in a great measure, a feeder for the Lower Bari Doab Canal, so that as a commercial proposition it cannot be judged solely by its own financial results.

Lower Chenab Canal.

302. The year was an abnormal one, the *kharif* season, being unusually dry, rainfall scanty and the demand keen. The usual Christmas rains also failed and the *rabi* crops were below the average. The canal was closed for three days only. The area irrigated was 2,395,976 acres (834,149 acres in *kharif* and 1,561,8 7 acres in *rabi*) and was less by 59,249 acres only than the record figures of 1919-20. The net revenue amounted to Rs. 146·60 lakhs, or 44·33 per cent. on an outlay of Rs. 330·65 lakhs, as compared with Rs. 146·15 lakhs, or 44·72 per cent. in the previous year.

Upper Jhelum Canal.

303. Rainfall was scanty during the *kharif* season but owing to the supply in the river being sufficient the demand was met without any difficulty. During the *rabi* season, winter rains failed and the demand for water was very keen; the supply in the river was low, but all crops matured safely. The area irrigated amounted to 345,189 acres as compared with 298,857 acres in 1919-20. Development of irrigation is only a little short of the Project forecast of 318,000 acres and this is due to the fact that irrigation commenced a year later than was anticipated in the Project. The net revenue was Rs. 1·13 lakhs or 0·25 per cent. on the capital outlay.

Lower Jhelum Canal.

304. The rainfall during the year was even less than in the preceding driest year of 1918-19. The absence of winter rains has perhaps no parallel within living memory. The *kharif* season was, on the whole, not so bad as the *rabi* season,

when owing to the absence of winter rains the maturing of the crops was a matter of great anxiety and the resulting outturn was below normal. Of the total area irrigated, 273,000 acres were irrigated during the *kharif* season and 550,021 acres during *rabi*. The former area, though less by 11,0̄0 acres than that in 1919-20, was larger than the average of either of the two previous triennia. The *rabi* area though less by 37,707 acres than the average of the triennium ending 1916-17, was better than in 1919-20 and the average of the triennial period ending 1919-20. The net revenue was Rs. 33·21 lakhs, or 19·16 per cent. on the capital outlay. In the previous year the percentage was 19·32. The decrease was due to an increase under working expenses, owing partly to revision of pay of all classes of establishment.

Upper Sutlej Inundation Canals.

305. The net area assessed was 314,451 acres, which was less by 19,081 acres than the figure of 1919-20 and by 16,610 acres and 21,601 acres than the averages of the triennial periods ending 1916-17 and 1919-20, respectively. The net revenue of Rs 2·86 lakhs shows a return of 15·64 per cent. on the capital outlay. In 1919-20 the figures of net revenue and the percentage were Rs. 2·94 lakhs and 16·15 respectively.

Sidl nai and its subsidiary canals.

306. The irrigation effected was 132,688 acres in *kharif* and 77,318 acres in *rabi*, as compared with 139,749 acres and 144,037 acres in the corresponding seasons of the preceding year. The failed area was 55,028 acres in *kharif* and 42,406 acres in *rabi* The increase of *kharaba* was due to there being no rain from September 1920 to March 1921, while the canal was dry on 12th November 1920 and did not flow again during the *rabi*. Such area as was matured, was matured by wells. The net revenue of Rs. 2·36 lakhs represents 17·65 per cent. on the capital outlay, against Rs. 5·33 lakhs, or 40·05 per cent. in the previous year.

Indus Inundation Canal.

307. The area irrigated was 161,198 acres in *kharif* and 88,204 acres in *rabi*, as compared with 166,489 and 73,154 acres, respectively, in the corresponding seasons of the preceding year. The decrease in the area irrigated during the *kharif* season was due to the late rise of the river and consequent late opening of the canals, while the increase during *rabi*

was due to the new Dhundi and the Dhundi Kutab flowing throughout the winter with small supplies. The total area remitted amounted to 61,927 acres during *kharif* and 30,371 acres during *rabi*. Bad soil accounts for most of the *kharaba*, as on certain channels there are large tracts in which the soil is poor and requires a great amount of labour, which the Biloch cultivator has neither the inclination nor the energy to supply. The net profit was Rs. 2·57 lakhs, or 8·64 per cent. on capital outlay, as against Rs. 2·22 lakhs, or 7·46 per cent. in the preceding year.

MINOR IRRIGATION WORKS.

Shahpur Imperial Inundation Canal.

308. The canal opened late in April and closed in the middle of August on account of a low river. The area irrigated was 35,941 acres, as against 45,809 acres in the preceding year and 39,075 and 35,056 acres, the averages of the two triennia ending 1916-17 and 1919-20, respectively. Revenue was remitted on 5,576 acres, out of which the failure of 4,926 acres was due to short supply. The net loss was Rs. 24,877 which shows an excess expenditure of about 11·05 per cent. on Rs. 2·25 lakhs, the capital outlay to date.

Ghaggar Canals.

309. The operations of the year resulted in a loss of Rs 27,811 which is equivalent to 7·28 per cent. on the capital outlay, compared with a loss of Rs. 28,817, or 7·61 per cent. in the previous year. The financial failure of the Ghaggar canals classed as a productive work, though it is virtually a protective work of importance, has become an accepted fact. During the course of the present settlement ways and means to alter the obviously unfair settlement have been discussed with the settlement officer and a more equitable settlement is anticipated.

Lower Sutlej Inundation Canals.

310. The area irrigated was 233,064 acres, as against 301,555 acres in the preceding year and 285,585 acres, the average of the previous triennium. The failed area amounted to 85,489 acres (62,296 acres in *kharif* and 23,193 acres in *rabi*) against 54,871 acres (35,852 acres in *kharif* and 19,019 acres in *rabi*) in the preceding year. There was a net loss of Rs. 552 as against a profit of Rs. 25,767 in 1919-20 owing to a heavier expenditure during the year, which was due to a work done on the Hajiwah and Muhammadwah head diversions. The heads of the canals worked satisfactorily with the exception of (1) the head of the Muham-

madwah, which owing to heavy river erosion was cut away in August (this canal was subsequently fed direct from the river and continued to give a good supply), and (2) the head of the Hajiwah Canal, which became silted in August on account of shoaling in the river, the canal thereafter being fed through an auxiliary head with satisfactory results.

Chenab Inundation Canals.

311. Owing to the river not rising as early as usual, the canals opened at a later date than the average of the previous years. The season was characterised by the absence of rains to any appreciable extent. There was no rain during September, October, November, February and March and the canals ceased to flow in September as a result of the low river, while the demand was keen throughout the year. The area irrigated was 131,360 acres as compared with 182,676 acres in 1919-20. The net income amounted to Rs. 1·37 lakhs, against Rs. 1·89 lakhs in the preceding year.

Muzaffargarh Inundation Canals.

312. The area irrigated was 330,167 acres, as compared with 364,350 acres in 1919-20 and 384,832 acres and 352,663 acres, the averages in the previous two triennia, respectively. The decrease was due to the low rivers and absence of rain. The net revenue was Rs. 2·40 lakhs, against Rs. 3·47 lakhs in the preceding year. The redeeming feature of the period under report was that, although the Indus fell like other rivers about the middle of August, some of the canals taking off from it, namely, Kot Sultan, the Magasson, the Puran and the Suleman, having very favourable conditions at their heads, continued to flow with appreciable supplies till late in the cold weather. This was a great boon to the cultivators as it enabled them to secure good *rabi* irrigation.

Shahpur Provincial Inundation Canals.

313. The canals were opened late in April, but owing to an unfavourable river they ceased to flow in August, which was earlier than usual. On the whole they worked satisfactorily. The area successfully matured and assessed, including areas under free grants, was 20,501 acres, as against 34,175 acres in the preceding year. The decrease is due to water not being available at the time of *rabi* sowings. Revenue was remitted on 2,089 acres, of which 1,179 acres were due to short supply, revenue on the remainder being remitted under free grants. The year's working resulted in a net loss of Rs. 33,499, against a net loss of Rs. 5,711 in the preceding year.

CHAPTER V.

Revenue and Finance.

Detailed information on the subjects dealt with in this chapter will be found in the reports and statistical tables noted below :—

PROVINCIAL REPORTS.

Land Revenue.—Report on the Land Revenue Administration of the Punjab for the agricultural year ending 30th September 1920.

Canal Revenue.—Administration Report of the Irrigation Department, Punjab, for the year 1920-21.

Excise and Opium.—Report on the Excise Administration of the Punjab for the year 1920-21.

Stamps.—Report on the Administration of the Stamp Department of the Punjab for the year ending 31st March 1921.

Income-tax.—Report on the Income-tax Administration of the Punjab for 1920-21.

Forests.—Progress Report of Forest Administration in the Punjab for 1920-21.

Provincial Revenues.—Review of the Audit and Appropriation Report on the Accounts of the Punjab for 1919-20 and Review of the Annual Accounts of the Punjab for the year 1920-21, published in the *Punjab Gazette*, dated $\frac{\text{June 17th, 1921.}}{\text{December 30th, 1921.}}$, Supplement, Part II.

Local Funds.—Report on the Administration and Accounts of the District Boards in the Punjab for 1920-21.

Municipal Revenues.—Report on the working of Municipalities in the Punjab during the year 1920-21.

PUBLICATIONS OF THE GOVERNMENT OF INDIA.

Statistical Abstract for British India, Volume I—Commercial Statistics.

Volume II—Financial Statistics.

Volume IV—Administrative and Judicial (including area, population and local funds).

Salt.—Report on the Administration of the Northern India Salt Revenue Department for the official year 1920-21.

36.—Gross Revenue and Expenditure.

Revenue.

314. The following table shows the receipts under the various heads of revenue, excluding revenue from salt, in the year under report :—

(In thousands of rupees.)

MAJOR HEADS.	Imperial.	Provincial.	Total.	+ more —less on figures for 1919-20.
Land Revenue	1,50,18	1,50,17	3,00,35	−13,26
Opium	6,97	...	6,97	− 1,85
Stamps	40,87	40,86	81,73	+ 3,84
Excise	73,97	73,97	1,47,94	+18,54
Provincial rates	...	37	37	− 4
Customs	9	...	9	− 15
Income-tax	39,74	26,15	65,89	+10,34
Forests	...	38,05	38,05	− 41
Registration	...	5,61	5,61	− 2
Tribute from Native States ...	1,48	...	1,48	+ 4
Interest	2,35	2,36	4,71	− 2,02
A.—Law and Justice—Courts of Law.	...	7,21	7,21	− 96
B.—Law and Justice—Jails ...	...	5,24	5,24	+ 12
Police	...	3,13	3,13	− 17
Education	...	4,96	4,96	− 14
Medical	...	95	95	+ 15
Sanitation	...	1,20	1,20	+ 2
Agriculture	...	6,67	6,67	− 79
Scientific and Miscellaneous ...	...	20	20	− 12
Receipts in aid of superannuation	80	83	1,63	− 6
Stationery and Printing ...	1,29	1,45	2,74	+ 40
Miscellaneous	12,35	10,45	22,80	− 5,29
Irrigation—Major Works ...	2,33,96	2,33,95	4,67,91	+19,62
" Minor Works ...	7,46	85	8,31	− 52
Civil Works	3,25	5,63	8,88	+ 2,01
Transfers between Imperial and Provincial revenue.	−55,32	+55,32	...	...
TOTAL ...	5,19,44	6,75,58	11,95,02	+29,28

315. The gross expenditure excluding expenditure of the Salt, Military, Railways, Post Office and Telegraph Departments and capital expenditure on canals, was as follows :—

Expenditure.

(In thousands of rupees.)

Major Heads.	Imperial.	Provincial.	Total.	+ more − less on figures for 1919-20.
Refunds and Drawbacks ...	3,73	3,47	7,20	+ 2,80
Assignments and Compensation	69	33	1,02	− 11
Land Revenue	...	73,82	73,82	+ 16,18
Stamps	1,16	1,16	2,32	+ 7
Excise	1,59	1,59	3,18	+ 68
Income-tax	1,05	1,02	2,07	+ 97
Forests	...	35,75	35,75	+ 11,59
Registration		1,99	1,99	+ 23
Interest	3,18	2,00	5,18	+ 37
General Administration ...	6,51	21,33	27,84	+ 8,75
Law and Justice—Courts of Law		63,55	63,55	+ 10,23
Law and Justice—Jails ...	...	24,41	24,41	+ 58
Police	...	96,16	96,16	+ 10,67
Education	...	73,12	73,12	+ 15,86
Ecclesiastical	3,87	...	3,87	+ 1,40
Medical	...	23,41	23,41	+ 9,38
Sanitation		8,37	8,37	− 1,57
Political	6,82	...	6,82	+ 32
Agriculture	...	26,00	26,00	+ 5,07
Scientific	74	3,65	4,39	+ 2,02
Territorial and Political Pensions	68	...	68	+ 1
Superannuation, &c. ...	24	27,81	28,05	+ 2,25
Stationery and Printing ...	42	10,59	11,01	+ 1,04
Miscellaneous	64	19,66	20,30	− 20
Famine Relief	1,01	34	1,35	+ 1,17
Irrigation, Major Works ...	66,01	66,01	1,32,02	+ 14,66
" Minor Works ...	11,60	4,80	16,40	+ 2,11
Civil Works	36,10	1,20,86	1,56,96	+ 17,05
TOTAL ...	1,46,04	7,11,20	8,57,24	+1,33,62

37.—Land Revenue.

316. The Land Revenue Report gives the figures for land revenue according to the agriculture year, which ends on the 30th September. There must consequently always be a difference between the total collections as calculated by the Treasury on the financial year and the yearly returns furnished by the Financial Commissioners' office.

For the year ending September 1920 the following are the figures of collections including those on account of

previous years, comments on which have already been made in section 10 dealing with demands:—

			Rs.
Fixed Land Revenue	...	...	2,41,75,569
Fluctuating Land Revenue	...	...	1,54,78,705
Temporarily excluded from Fixed Land Revenue Roll	...	...	83,769
Other Land Revenue	...	...	65,32,172
	Total	...	4,62,70,215

38.—Irrigation.

317. The gross receipts from the operation of major works amounted to Rs. 468·45 lakhs, and working expenses to Rs. 141·65 lakhs, giving a net revenue of Rs 326 80 lakhs, or 14·51 per cent. on the total outlay of Rs. 2,252·22 lakhs, as against 14·43 per cent. in the preceding year. The net profit, after defraying interest charges, comes to 11·25 per cent. of the total outlay, compared with 11·08 per cent. in 1919-20, while direct receipts alone yielded 5·26 per cent. Of the Triple Canal Project the Lower Bari Doab Canal has shown remarkable financial results: in seven years it has paid off the whole of its interest debt, amounting to over Rs. 69½ lakhs, and now shows a surplus revenue of nearly Rs. 35 lakhs to its credit. The Upper Chenab Canal also has cleared nearly half of its accumulated interest charges. The operations of minor works resulted in a net revenue of Rs. 2·90 lakhs, as against Rs. 5·36 lakhs in the previous year.

39.—Excise.

318. The gross income from all sources very nearly touched Rs. 148 lakhs, or more than Rs. 18 lakhs above the income of the previous year, a rise which is the more remarkable in view of decreased consumption generally. The expenditure of the department advanced from Rs. 2·66 lakhs to Rs. 3·35 lakhs.

Income and expenditure.

319. The distilleries showed increased activity in the production of rectified and denatured spirits but the output of potable country liquor declined. Spiced spirit continues to gain in popularity at the expense of plain spirit, owing, partly, to the

Distilleries.

sealed bottle system which was further extended. In the last three months of the year the Amritsar distillery was called upon to meet a large demand from Sind. Exports were also made to Jammu and Kashmir and, in consequence of an agreement with Chamba, into the Bhatti tract of that State The Indian distillery at Cawnpore, the Rosa and the Lucknow distilleries all exported liquor to the Punjab, but railway restrictions reduced the total amount as compared with the preceding year.

Breweries.

320. There was again a falling off in the sale of country beer from 2,525,558 gallons to 1,869,905—though even the latter figure is considerably in excess of pre-war consumption. The trade in imported beer, on the other hand, was brisk. The duty on beer was raised from Re. 0-4-6 to Re. 0-6-6 with effect from 1st March 1921.

Country spirit.

321. The consumption of country liquor decreased by 30,921 gallons, or 5 6 per cent.—a result achieved by raising the duty from Rs. 6-4-0 per gallon to Rs. 7-8-0, by reducing the number of shops from 666 to 605 and by adding Rs. 10 lakhs to license fees. In the preceding year there had been an increase in both plain country spirit and spiced spirit. In the year under report the consumption of the former went down by about 75,000 gallons, but the rise in consumption of spiced or special spirit was as much as 4[illegible],000 gallons. These figures show that not only is more money being spent on the whole on liquor, but that most of it is being spent on the expensive varieties produced in the country: the sale of spiced spirits has nearly doubled itself in three years. Whether this growth is evidence of the fact that indulgence in liquor is on the rise among the more well-to-do classes, or whether of the fact that the consumer, irrespective of his class, is convinced rightly or wrongly by advertisements or otherwise that he gets his money's worth better by taking special spirit, this much is indubitable that high prices have not proved deterrent. There were 759 convictions for drunkenness, as against 863 in the preceding year. The introduction of the sealed bottle system is said to be responsible for the decline of convictions in the municipal areas of Simla, Amritsar, Lyallpur and a few other towns Two hundred and fifty-six persons were convicted for illicit distillation, 19 for illicit sale of liquor and 148 for illicit possession of country liquor.

Opium.

322. There was a further reduction in the consumption of opium, the only district in the province which increased its consumption being Amritsar. The decrease is attributed to three causes, (*i*) the enhancement of the issue price from Rs. 32-8-0 to Rs. 40 per seer and corresponding increases in import and transport duties, (*ii*) the system of rationing referred to in the report of the preceding year, and (*iii*) a further reduction in the number of opium shops, 110 shops having been closed in the last two years. The retail price of opium to the consumer showed a very remarkable rise; the price per seer is reported to have ranged between Rs. 50 and Rs. 237, the latter figure being reached in Jhang. These high prices stimulated smuggling of Rajputana opium into the Punjab. Sixteen persons were convicted as the result of raids made on *chandu* and *madak* dens. The total receipts from opium advanced from Rs. 30·55 lakhs to Rs. 36·28 lakhs.

Hemp drugs.

323. While considerable variations occurred in the consumption of *charas* in the different districts, the total amount consumed was practically the same as in the previous year (21,201 seers against 21,327 in 1919-20). The consumption of *bhang* inside the province fell from 93,135 seers to 84,745, but exports to Native States and to other provinces increased by 4,500 seers and about 11,000 seers, respectively.

Cocaine.

324. Sales of cocaine rose from 6,788 grains to 9,703. Cases of illicit traffic in the drug still occur; four were detected in Ambala district alone.

Standing Committee on Excise.

325. The Standing Committee of the Punjab Legislative Council on Excise (now a transferred subject) held a meeting on the 16th September 1920, in which it was decided, with the object of restricting increase in drinking, to introduce a system of fixed maximum issues of spirits for each liquor shop on the lines of the system already in vogue for opium shops. The details of the scheme have been worked out and applied to nine districts from the 1st of April 1921. Towards the end of the financial year a resolution on local option was carried in the Council.

40.—Salt Revenue.

CIS-INDUS AND KALABAGH MINES.

Khewra Mine.

326. This was a most unfortunate year for the mine on account of the strike of miners at Khewra, which began at the end of January 1921. The output was only 3,602,330 maunds as compared with 3,827,658 in the preceding year. Excavation work was normal up to September 1920 and thenceforward until the strike occurred was exceptionally good. The drainage works completed last year could not be thoroughly tested because there was very little rain during the monsoon. The earth filled into the large depressions has, however, had time to settle and less water entered the mine. A masonry aqueduct has also been constructed in order to protect the low level tunnel where it passes under the Billianwala stream. Work on the improvement of the water supply at Khewra and Warcha was continued, and is now nearly finished.

Warcha Mine.

327. The development of the Warcha Mine made very little progress during the year, the mine being blocked with an accumulation of salt. Drifts aggregating 947·5 running feet were driven at a cost of Rs. 1,375. The tramway and rolling stock were kept in order. The new bungalow for the superintendent was constructed and work on the hospital and quarters for the medical staff approached completion.

The smaller mines.

328. No expenditure was incurred at the Nurpur mine. Advances were made in the two drifts at Kalabagh and a cross drift now connects the two. Salt amounting to 5,821 maunds were excavated.

Financial results and sale price.

329. There was a net loss during the year of Rs. 44,836 as compared with a net profit of Rs. 83,804 in 1919-20. The average cost of excavation and transport to the depôt cannot be given for the complete year owing to the strike. The price of salt from the Salt Range was further raised from 2 to 3 annas a maund with effect from the 1st March 1921.

Investigation of the potash salt deposits at Nurpur.

330. Excavation of potash salt continued at Nurpur. One thousand three hundred and fifty maunds were sent to Calcutta during the year.

331. The average number of persons employed daily above and below ground during the calendar year fell from 869 to 852, of whom 487 were men, 312 women and 53 children under twelve years of age. There were 46 minor accidents and 5 serious accidents at Khewra, and none at either Warcha or Kalabagh.

Accidents.

332. The employment of jail prisoners at Khewra continued to prove successful. Their introduction in larger numbers was under consideration, since the free labour available for depôt purposes was found to be inefficient as well as expensive.

Jail prisoners.

MANDI QUARRIES.

333. Sales of Mandi salt amounted to 145,619 maunds, an increase of 15,947 maunds over the figure of the previous year. The increase of 12,905 maunds at Guman and 3,042 maunds at Drang was due to satisfactory working and to the dryness of the weather. The year closed with no uncleared balance and with 10,911 maunds of salt in stock. There was no change in the area of consumption and the price and duty remained as before.

Mandi.

SULTANPUR SALT WORKS.

334. The demand for Sultanpur salt was fairly brisk. The outturn from the 32 licensed works was 42,129 maunds, as compared with 45,819 maunds in 1919-20 ; clearances were 55,999 maunds against 23,922 The sale price fell from 10 to 8 annas a maund. The year closed with a balance of 10,228 maunds in store and indents for 400 maunds to be cleared.

Sultanpur.

SALTPETRE.

335. Rs. 3,806 were realised on account of fees of 51 refineries and 1,353 crude saltpetre licenses issued in the Punjab. The refineries were all worked during the year. The outturn of refined salt-petre in the province was 148,345 maunds. No purified salt was educed in refineries. The quantity of *sitta* (impure salt) educed amounted to 117,952 maunds, while 3,453 maunds of *sitta* were excised and 169,120 maunds destroyed.

Saltpetre.

41.—Stamp Revenue.

Income.

336. The total receipts under the Stamps and Court Fees Acts amounted to Rs. 81·74 lakhs as compared with Rs. 77·93 lakhs in 1919-20.

Judicial stamps.

337. The receipts from the sale of court-fees or judicial stamps show an increase of Rs. 6·22 lakhs over the figures for the preceding year. The reasons for this increase are the doubling of process fee (*talbana*) in munsifs' courts, increase of the fees for inspection of records, larger institutions of civil suits due to the return of military men from service overseas, and the institution of suits of extraordinarily high value in certain districts. In Montgomery the increase is ascribed to colony development, in Lahore to stamps of high value having been sold for probate cases and in Amritsar to an increase in litigation in consequence of breaches of contracts for sales of house property.

Non-judicial stamps.

338. The sale of non-judicial stamps contributed Rs. 31·28 against Rs. 33·71 lakhs in the previous year, or a decrease of Rs. 2·43 lakhs. The largest decrease was on account of impressed sheets. Most districts report small increases in the sale of impressed stamps, but the falling-off in the total for the province is mainly due to the districts of Lahore and Amritsar reporting decreases of over Rs. 1¼ lakhs and Rs. 2 lakhs, respectively, on the previous year's figures. In both these districts the figures of the previous year represented an inflated demand on account of several transactions for sale of landed property, and the decrease in the year under report is, therefore, due to the return of normal conditions. The increase in the sale of *hundis* occurred mainly in the Amritsar district.

Miscellaneous.

339. The increase of Rs. 24,142 and Rs. 44,475 in the sales respectively of foreign bill and share transfer stamps was due to large purchases by a bank at Lahore and the sale of foreign bill stamps of Rs. 19,000 at Amritsar. The noticeable decrease of Rs. 89,903 appearing under Legal Practitioners's tamps represents a return to normal figures after the unusually large receipts of the year 1919-20, when the formation of the High Court resulted in the admission on payment of increased fees of former pleaders of the Chief Court as vakils

of the High Court. During the year a committee was appointed under the orders of Government to enquire into and submit proposals for increasing stamp duties and court-fees.

Expenditure.

340. The expenditure of the department rose from Rs. 3·13 lakhs to Rs. 3·53 lakhs. This latter figure includes a sum of Rs. 1·72 lakhs on account of refunds, of which Rs. 46,432 represents the cost of stamps and plain paper supplied from the central stores.

42.—Income-tax.

Collections.

341. Collections rose from Rs. 43·18 lakhs to Rs. 48·91 lakhs. This sum includes Rs. 16·07 lakhs collected during 1920-21 on account of previous years. All the uncollected arrears pertaining to years prior to 1920-21, however, have not yet been collected and a sum of Rs. 1 lakh is still outstanding on this account. The demand of the year amounted roughly to Rs. 58 lakhs, and out of this Rs. 25·13 lakhs remained uncollected. The total amount outstanding on 31st March 1921 reached the record figure of Rs. 26·24 lakhs. Adjustments under section 19 resulted in recoveries amounting to Rs. 4·42 lakhs. The procedure relating to adjustments is reported to have proved cumbrous in practice and the assessee, for whose benefit it was primarily meant, appreciates it least of all.

Income assessed.

342. Excluding salaries, the total income on which tax was collected amounted to nearly Rs. 10¼ crores. Three crores of this income belonged to assessees whose individual income ranged between Rs. 3,500 and Rs. 7,499 per annum. Seventy-seven assessees in all paid taxes on incomes above Rs. 50,000 and the total amount collected from them as tax amounted to Rs. 7·07 lakhs. This amount is slightly less than one-fifth of the total collections of the year's assessments. Fifteen out of these seventy-seven are large companies, and these alone were responsible for an assessment of nearly Rs. 3¾ lakhs. The remaining 62 assessees thus paid only Rs. 3¼ lakhs.

Working of the Act.

343. The Act was understood somewhat better than in the previous year, but the main difficulty about the proper filling of returns continued. The simplified form of return for rural assessees proved useful. The number of special

income-tax officers was increased from 6 to 11, those in Lahore, Amritsar and Ferozepore being also in charge of the excise work of those districts. The assessment made by these 11 agencies secured on the whole an increase of Rs. 11·83 lakhs.

43.—Forest Revenue.

General financial results.

344. The revenue and expenditure were classified as follows:—

Revenue.	*Lakhs.*	*Expenditure.*	*Lakhs.*
I.—Timber and other produce removed from the forests by Government agency ...	22·29	A.—Extension, constitution, improvement, and exploitation of the forest property ...	27·39
II.—Timber and other produce removed from the forests by consumers or purchasers	9·12	B.—Administrative, executive and protective charges ...	8·30
			35·69
II.—Drift and waif wood and confiscated forest produce ...	6·63	Cash surplus ...	2·35
Total ...	38·04	Total ...	38·04

The decrease in revenue is mainly due to the shorter period under review, but other contributing factors were reduced sales of *shisham*, a smaller demand for *chir* and bamboos, and general trade depression, while the process of changing the system of sales of standing trees to that of departmental working in Kulu is also responsible for the temporary drop. The large increase in expenditure is due to the general expansion of forest operations, considerable additional expenditure on the Changa Manga tramway, roads and buildings, revision of pay and travelling allowance rates and the increase of executive and clerical staff.

Profits.

345. The true results of the year's working show a surplus of Rs. 18·56 lakhs :—

	Lakhs.
Increase in value of stock	4·96
Capital expenditure less interest ...	4·99
Increase in outstandings of revenue ...	·80
Total ..	10·75
Less cash deficit	·17
	10·58
Timber afloat	7·98
True surplus ...	18·56

44.—Provincial Revenue and Expenditure.

Balance sheets.

346. As 1920-21 was the last year of the pre-reforms era, and from the 1st of April, 1921, a new financial settlement on radically new lines came into being, it may be useful to give a brief outline of the financial history of the province in the previous few years. The following table exhibits the Provincial revenue and expenditure and the closing balance for each year from 1914-15 to 1920-21 :—

(Figures in thousands of rupees.)

Year.	Revenue.	Expenditure.	Closing balance.
	Rs.	Rs.	Rs.
1914-15	4,94,76	4,76,06	52,21
1915-16	4,88,51	4,77,18	63,59
1916-17	5,17,69	4,58,49	1,22,75
1917-18	5,50,30	4,78,53	1,94,52
1918-19	5,73,76	5,37,33	2,30,95
1919-20	6,60,88	6,31,90	2,59,93
1920-21	6,75,58	7,47,86	1,87,36

In these seven years, the revenue of the province has improved by nearly two crores per annum, or 42 per cent., despite the fact that 1920-21 was a bad year. The years 1914-15 to 1918-19 were years of enforced economy on account of war conditions with the result that the provincial balances increased from Rs. 52 lakhs to Rs. 231 lakhs. 1919-20 showed a further increase in the closing balance to Rs. 260 lakhs. Of this a part can be attributed to the exceptional and unforeseen increase in the receipts of that year, totalling Rs. 661 lakhs. 1920-21, on the other hand, has shown a reduction in the closing balance of Rs. 73 lakhs, as compared with the previous year.

Provincial share of receipts.

347. The following table shows the Provincial share of the receipts under the principal heads of Revenue since 1914-15 :—

(Figures in lakhs of rupees.)

Year.	Land Revenue.	Stamps.	Excise.	Forest.	Irrigation Public Works Department (Major Works).	
					Direct receipts.	Indirect receipts.
1914-15 ...	1,42	27	35	14 (5·5)	1,22	51
1915-16 ...	1,40	29	35	17 (8·0)	1,19	54
1916-17 ...	1,43	30	38	17 (7·5)	1,39	60
1917-18 ...	1,56	30	43	21 (9·6)	1,36	53
1918-19 ...	1,43	30	53	22 (3·5)	1,3[illegible]	58
1919-20 ...	1,56	39	65	38 (14·3)	1,62	53
1920-21 ...	1,51	41	74	38 (2·3)	1,67	57

The receipts shown under each head mentioned above (except Forests) are half the total receipts under that head, the other half being "Imperial receipts."

In the column headed "Forests" are shown in bracket the net receipt after deducting Forest expenditure.

These figures illustrate the large expansion which has taken place in—

Stamp revenue (owing to increase in rates and expansion of trade),
Excise revenue (owing to general prosperity and the devaluation of money), and
Irrigation (owing to the development of irrigation); but
Land revenue has proved a very inelastic source of revenue, the increase in six years being only some six per cent., although the depreciation in the value of money has very much exceeded the latter figure.

These Land Revenue receipts include large amounts of a non-recurring nature due to the sale of Government estates and the sale of waste land, these receipts being almost entirely on account of land made available for cultivation in the Canal Colonies. Of a similar nature are the receipts from the sale-proceeds of town sites (through Imperial assignment) due to the creation of new towns in the colony areas. All these receipts, due to the expansion of canals, are of a capital nature and ought to be reserved for capital expenditure. The following table shows the Provincial share of the receipts for a series of years. The Imperial Government has received as its share amounts equal to those tabled below. The figures show that the Provincial revenues have benefited to the extent of Rs. 149 lakhs in the last seven years through the sale of such lands and sites :—

(Figures in thousands of rupees.)

Year.	Sale of Government estates.	Sale of waste land.	Sale-proceeds of town sites.
1914-15	4,11	15,09	19
1915-16	3,24	12,30	1,52
1916-17	3,28	11,39	3,80
1917-18	3,70	13,48	1,76
1918-19	4,53	15,22	2,14
1919-20	6,74	16,06	10,24
1920-21	3,87	10,15	5,82

348. The following table shows the Provincial expenditure under the main heads during the last seven years. It indicates the extent to which war economies operated to lower expenditure, and also how much increased prices and increased salaries together with pre-war expansion operated last year to raise the totals :—

Provincial expenditure.

(Figures in lakhs of rupees.)

Year.		Land Revenue.	General Administration.	Law.	Jails.	Police.	Education.	Medical and Sanitary.	Civil Works, Public Works Department.	Irrigation Working Expenses, Public Works Department.
1914-15	...	50	13	46	16	62	42	28	70	44
1915-16	...	49	12	47	18	64	44	20	52	52
1916-17	..	47	12	45	18	65	43	16	39	52
1917-18	...	47	12	43	19	66	44	19	47	52
1918-19	...	49	12	46	23	71	54	20	62	51
1919-20	...	58	15	64	24	85	57	24	90	58
1920-21	..	74	21	64	24	96	73	32	1.10	66

The following causes are responsible for increases under practically every head during 1920-21 as compared with 1919-20 :—

(1) The grant of a temporary allowance originally sanctioned by the Government of India with effect from October 1st, 1919, and in force till the end of September 1920, after which revision of pay of most non-gazetted establishments took place at a cost of about one crore per annum over previous pay and temporary allowance. The pay of several gazetted establishments, which were previously not in receipt of temporary allowance, was also revised during the year.

(2) The high prices of food-grains and the high rate at which grain compensation allowance was drawn.

(3) Increased contingent charges necessitated by the increase in rates of travelling and horse allowances, and general increase in prices.

(4) The return from military duty of many officers.

Apart from these, reasons for increases have been explained under various heads dealt with in previous paragraphs of the Report, but the following items may be mentioned. The reform scheme, including pay of Members, Ministers and other additional charges, is responsible for about Rs. 1½ lakhs of the increase under "General Administration." The transfer of the Medical School to Amritsar, the return of some of the staff from military service and additional itinerating dispensaries have assisted in the increase under "Medical." Under "Sanitation" a lakh was spent on the newly-formed Drainage Board, and some other expansion took place. The increase in Civil Works was to a certain extent due to the return to normal conditions after the wartime restrictions.

45.—Local Funds.

Income.

349. The gross income of district boards was Rs. 112·73 lakhs which exceeded by little over Rs. 5 lakhs that of the previous year and was the highest figure yet attained. Rather over Rs. 43½ lakhs of the increase was contributed by the local rate, the balance being, as usual, mainly the result of Government grants.

Expenditure.

350. The expenditure rose by Rs. 23·85 lakhs to Rs. 122·31 lakhs, thus exceeding income by nearly 10 lakhs. Variations in income and expenditure under the more important heads have already been discussed in section 24.

46.—Municipal Funds.

Income.

351. The total income of municipalities in 1920-21 amounted to Rs. 131·99 lakhs. The increase (about Rs. 17½ lakhs) is accounted for partly by the increased receipts from octroi already referred to in section 25 and from terminal tax and also by Government grants. The incidence of taxation per head of population was Rs. 4-2-9.

Expenditure.

352. The total expenditure for the year was Rs. 130·92 lakhs, of which Public Instruction and Roads accounted for Rs. 13·50 lakhs and Rs. 11·21 lakhs, respectively. The cost of collection of taxes was Rs. 6·67 lakhs.

CHAPTER VI.

Vital Statistics and Medical Service.

Detailed information on the subjects dealt with in this chapter will be found in the reports and statistical tables noted below :—

PROVINCIAL REPORTS.

Census.—Report on the Census of the Punjab, 1911, by Rai Bahadur Pandit Hari Kishan Kaul, C.I.E.

Births and Deaths—Sanitation. { Report on the Sanitary Administration of the Punjab and Proceedings of Sanitary Board for the year 1920.

Emigration.—Census Report as above.

Medical Relief — { Triennial Report of the working of the Charitable Dispensaries in the Punjab for the years 1918—20.
Report on the working of the Punjab Lunatic Asylum for the year 1920.

Vaccination.—Report on Vaccination in the Punjab for the year 1920-21.

PUBLICATION OF THE GOVERNMENT OF INDIA.

Statistical Abstract for British India, Volume III— Public Health.

47.—Details of Census.

[*Vide* pages 157—67 of the Administration Report for the year 1911-12.]

48.—Births and Deaths.

353. General. The population of the Punjab to which the statistics in this report relate is that of the census of 19.1, namely, 19,337,146 (10,608,101 males and 8,729,045 females); but a rough estimate of the population for the year under report, which has been prepared by adding births and subtracting deaths since last census report, works out to 20,713,647 (11,374,675 males and 9,338,972 females). Calculated on this estimated population the birth rate is 40·1 or 2·8 *per mille* less than the rate calculated on the census figures; similarly, the death rate, 21·8, is less by 6·8. In individual districts the rates calculated on the census figures are in excess in all the districts except Gurgaon, Simla and Dera Ghazi Khan, these being districts in which

the estimated population showed a reduction as compared with the census figures both in the previous as well as in the year under report. The year 1920 was a healthy year. The death rate (28·6) was low and only slightly in excess of that of the previous year. As usual "fevers" accounted for the highest death rate and the rate is in excess of that for 1919. The rates for dysentery and diarrhœa, respiratory diseases and all other causes are also slightly in excess of those for last year. Cholera, small-pox and plague show an appreciable reduction. The death rate under injuries remained practically stationary. The birth rate is higher than that recorded for the two previous years.

Births.

354. The total number of births registered this year was 829,803, of which 437,257 were males and 392,546 females, the respective rates being 42·9, 22·6 and 20·3 *per mille*. The total rate shows an increase of 2·6 as compared with the previous year but is identical with the average for the previous five years. A comparison by districts with the quinquennial average shows that in the Lahore, the Rawalpindi and the Multan Divisions the rate in 1920 was in excess. In the remaining two divisions of the province the rate in 1920 was less than the average for the previous five years except in the districts of Simla in the Ambala Division and Kangra in the Jullundur Division, where it was in excess. Compared with the previous year the rate was greater in the whole of the Jullundur, Lahore and Rawalpindi Divisions. In the Ambala and Multan Divisions it was in defect in the districts of Karnal, Ambala, Jhang and Multan. The birth rate for 1920 is satisfactory as showing a gradual return to normal conditions after the ravages of war and pestilence. In accordance with the biological theory of reaction it should steadily increase to a figure in excess of pre-war rates. The birth rate in the 39 principal towns was 44·5 *per mille* as against 45·6 in 1919 and 44·7, the average for the previous five years. The rates in the three largest towns were—Amritsar 46, Multan 40 and Lahore 39, which are lower than last year's in each case.

Deaths.

355. The total number of deaths registered during the year was 552,073, of which 298,444 were males and 253,629 females, the rates being 28·6, 28·1 and 29·1 *per mille*. The corresponding rates for the previous year were nearly the same, but the averages for the last five years were 43·0, 40·3 and 46·0. Of the provincial

death rate 19·2 was attributable to fevers, 5·0 to all other causes, 2·7 to respiratory diseases, 0·5 to small-pox, dysentery and diarrhœa, and 0·3, 0·3 and 0·01 to plague, injuries and cholera, respectively. Compared with the quinquennial average the total death rate in 1920 showed a decrease of 14·4 *per mille* and an increase of 0·3 over the ratio for the previous year. The decrease as compared with the quinquennial average is due to the lessened incidence of "fevers," plague and infectious diseases. The slight increase as compared with 1919 is due to the greater incidence of influenza and relapsing fever, coupled with a widespread epidemic of measles in the early part of the year.

Monthly variations in health.

356. The highest death rates were recorded in May and June, 3·18 and 3·01 *per mille*, respectively. These rates were followed by 2·52 in December and 2·44 in January and in the other months the rates varied from 1·93 in August to 2·33 in April. August was the healthiest month, closely followed by October, February and November. The quarterly death rate was January—March 6·87, April—June 8·52, July—September 6·41, October—December 6·76. The highest death rate was in the second quarter, the period during which relapsing fever is at its height, and the rate is a fair indication of the importance of that disease. The rate was also swollen by the co-incident epidemic of measles. In an ordinary year the last quarter, when the effects of malaria become evident, is usually the worst.

Incidence of mortality.

357. The mortality of infants under one year of age rose from 184·15 and 170·10 for males and females, respectively, to 191·85 and 173·40 *per mille*. Calculated on the number of births recorded during the year the rates work out at 186·32 for males and 178·65 for females, as against 189·33 and 188·04 in the preceding year. The rates of mortality among persons of 60 years' age and upwards and of children between the ages of one and five show a slight increase. Between the ages of five and forty the mortality of females exceeded that of males.

Classification of deaths by communities.

358. The death rate among Indian Christians was 34·66 for males and 32·64 for females. The corresponding rate for Hindus was 28·77 and 31·85, for Muhammadans 27·52 and 26·87, and for other classes 28·31 and 24·00.

Urban and rural death rates.

359. The urban rate, 32·75, exceeded the rural rate, 28·12, under all the heads of mortality except small-pox and fevers, under which heads the recorded excess over urban rates was 0·20 and 3·41, respectively.

Cholera.

360. The mortality from cholera during 1920 was the lowest on record since 1899 and amounted to 138, as compared with 8,561 deaths in the previous year, a rate of 0·01 *per mille* as compared with 0·44 in 1919 and 0·26, the average for the previous five years. Deaths were recorded in 20 out of the 29 districts, but with the exception of a few localities the disease nowhere appeared in an epidemic form. The largest number was recorded in Lahore, *viz.*, 29, next in order coming Hissar with 21, Kangra with 13, and Hoshiarpur with 10. The province was practically free of the disease during the first quarter of the year, while in the second quarter only one death was reported from Mianwali and two each from Gujranwala and Gurgaon. It was not till the third quarter of the year that the mortality showed signs of increase, the number of deaths during that quarter amounting to 132. Thereafter the province was again free of cholera with the exception of one suspected case in Gujrat. Out of the 138 deaths recorded from cholera 63 were directly due to the importation of infection from Hardwar.

Small-pox.

361. Nine thousand three hundred and nineteen deaths were registered from small-pox, giving a ratio of 0·48 *per mille*, which was 0·23 higher than the mean ratio during the preceding quinquennium and 0·31 lower than the rate for the previous year. The highest death rate from small-pox was recorded in Montgomery (3·92), Shahpur coming next with 1·87, while the lowest rate recorded was 0·01 in Rohtak and Kangra. Of the deaths registered under this head 2,583 were of children under one year of age and 4,750 of children from one to ten years of age. The death rate from small-pox in urban areas was 0·30 and 0·50 in rural circles, and the average rate for towns in which the Compulsory Vaccination Act is in force was 0·27, as against 1·14 in the previous year.

Plague.

362. There were altogether 7,972 deaths in the Punjab from plague in the year under report, 6,153 in British districts and 1,819 in Native States. On the whole it was a mild year in comparison with

1919, when the total mortality from plague amounted to 12,683. The mortality for the districts most infected was Rohtak 667, Gujranwala 1,565, Jhelum 363, Rawalpindi 220, Attock 1,402, Lyallpur 460, and Multan 372. The districts of Gurgaon, Ambala, Simla, Kangra, Hoshiarpur, Jullundur, Amritsar and Gurdaspur remained free of infection throughout the year. The majority of cases were of the bubonic type, though pneumonic and septicæmic cases were also reported from Montgomery, Shahpur and Attock districts. Systematic rat destruction was continued.

Fevers.

363. There were 3 71,432 deaths registered under the head of fevers during the year under report as against 365,045 in 1919. The number of deaths from fevers was highest in May (42,350) and lowest in August (24,536). The fever rate worked out at 19·21 *per mille* of population, as compared with 18·88 in the preceding year and 29·20 for the quinquennium. All the districts of the Ambala, Jullundur and Lahore Divisions, except Hissar, Gurgaon, Ferozepore, Gujranwala and Sheikhupura, recorded a death rate higher than that of the previous year, while the remaining districts except Rawalpindi showed a decrease. The urban and rural death rates from fevers were 16·12 and 19·53, slightly higher than in the previous year, but well below the quinquennial average.

Influenza.

364. Influenza was prevalent in a mild form in the districts of Hissar, Karnal, Ambala, Simla, Jhelum, Rawalpindi, Attock and Muzaffargarh. The districts in which relapsing fever was prevalent were Hissar, Ambala, Amritsar and Karnal.

Other diseases.

365. The deaths from dysentery and diarrhœa were 9,185, as against 8,639 in the previous year, and those for respiratory diseases amounted to 52,770, the rates of 0·47 *per mille* for the former and 2·73 for the latter showing an increase of 0·02 and 0·77 over the previous year. The total number of deaths registered under "all other causes" amounted to 96,602 or a rate of 5·00 *per mille*, an excess of 0·10 over the previous year's rate. The rate for the preceding year and the average for the preceding five years were 4·90 and 6·10, respectively.

49.—Emigration and Immigration.

366. There is nothing of special interest to report under this section.

50.—Medical Relief.

Dispensaries.

367. During the year 3 dispensaries were closed and 39 new ones opened, the number working at the close of the year being 540. Special grants of Rs. 1·5 lakhs for opening new dispensaries, and Rs. 69,000 for equipping and improving existing dispensaries, were allotted to local bodies and societies before the end of the last financial year.

Patients.

368. The total number of in and out-patients treated was 4,609,646, as compared with 48,30,911 in 1919, the decline being attributed to the healthiness of the year. In-patients aggregated 96,783 against 93,141 and out-patients 4,512,863 against 4,737,770 in 1919. The number of patients of different classes treated in public, local fund, and private aided institutions in the Punjab during 1920 was—

	(*In thousands.*)
Europeans and Anglo-Indians ...	6
Hindus	2,043
Muhammadans	2,290
Others	269

Statistics of diseases.

369. The principal diseases for which patients were treated in 1920 are shown below :—

	Patients.
Cholera	127
Dysentery	52,082
Enteric fever	3,079
Malaria	506,745
Rheumatic fever and rheumatism ...	81,800
Small-pox	467
Other tubercular diseases	5,181
Diseases of the eye	1,090,135
Diseases of the ear	349,676
Diseases of the nose	28,384
Dyspepsia	167,557
Diarrhœa	46,059
All other diseases of the digestive system ...	520,864
Ulcers	365,774
Other diseases of the skin	367,099
Injuries (general and local)	214,838

Departmental institutions.

370. The cases treated in Police, Canal, Railway and other State special hospitals and dispensaries numbered 650,785 (7,528 in-patients and 643,257 out-patients) as compared with a total of 646,279 in 1919.

Non-aided dispensaries.

371. At the private non-aided dispensaries 73,864 patients were treated and 2,867 operations were performed, against 82,905 patients and 3,949 operations in the preceding year.

Surgery.

372. The total number of surgical operations performed was 250,568 as compared with 261,904 in 1919. The selected operations which totalled 44,760 included 19,412 removals of lens for cataract, of which 95 per cent. were successful.

Income and expenditure.

373. The total income of dispensaries of Classes I, III and IV was Rs. 26 lakhs against Rs. 20 lakhs in 1919. Government, local fund and municipal contributions amounted to Rs. 3·41 lakhs, Rs. 9·08 lakhs and Rs 7·92 lakhs, respectively, while interest on investments, subscriptions and miscellaneous receipts amounted to a total of Rs. 3·58 lakhs. The total expenditure, including a sum of Rs. 2,941 which was invested, amounted to Rs. 2·41 lakhs.

Mayo Hospital.

374. The total expenditure from all sources during the year amounted to Rs. 3·21 lakhs, compared with Rs. 1·99 lakhs during 1919, more than three-quarters being met from Government funds.

Female medical aid and education.

375. The dearth of trained workers is still a formidable problem, and has accounted for the fact that no notable improvement has been effected in the arrangements for female medical relief. Candidates do not seem to evince any keen desire to accept positions as women sub-assistant surgeons and as compounders. To counteract this seeming apathy on the part of young women, and to provide some sort of attraction, the Local Government and certain municipal committees and district boards have recently sanctioned the grant of stipends of Rs 10 and Rs. 15 per mensem to girls in the 4th and 5th High Classes, respectively, provided that they enter the M. P. L. class of the Punjab Medical School for Women at Ludhiana on passing the Entrance Examination. It is hoped that this expedient will induce more women

to join the medical profession and serve Government and thus reinforce the sadly depleted ranks of the trained female medical workers. The Provincial Service for women sub-assistant surgeons did not attract many; 7 out of the 18 sub-assistant surgeons employed decided to join the new service, the rest being content to continue their service under local bodies. Classes for the training of *dais* and nurse *dais* were conducted as usual at Bhiwani, Ambala, Ferozepore, Ludhiana, Lahore, Jandiala, Asrapur and Muzaffargarh, assisted partly by the Victoria Memorial Scholarship Fund.

PUNJAB LUNATIC ASYLUM.

376. The daily average population of the Asylum was 863, as compared with 875 in 1919, the capacity of the Asylum being for 862. The maximum number of lunatics confined in any one night was 901. The total number discharged was 285; 109 died, leaving 854 patients under treatment at the close of the year. The percentage of cured cases to the daily average strength fell from 13 to 12 owing to the decline in the admission of military insanes. The daily average sick fell from 91 to 65, but the death rate rose from 10·5 to 13. Influenza, which again appeared in epidemic form and accounted for thirteen deaths, was confined chiefly to the female section of the Asylum. A site has now been selected for an asylum for criminal lunatics. Two non-criminal insanes escaped whilst employed on the Asylum farm—one of whom has hitherto avoided capture.

51.—Sanitation.

Village sanitation.

377. Although a few attempts have been made to improve village sanitation, they have not met with any great success. The chief obstacle to progress is the attitude of the villagers who evince scarcely any desire to change their habits and customs, and unless this barrier can be broken down no real progress will be possible. Out of an income of Rs. 98·27 lakhs the municipalities spent Rs. 34·42 lakhs on sanitation and vaccination. District boards spent Rs. 1·48 lakhs only out of an income of Rs. 107·69 lakhs on the same objects.

Reorganisation of sanitary policy.

378. On March 1st, the Plague and Malaria Departments were transferred to the Sanitary Department by the Inspector-General of Civil Hospitals. These departments will continue

as separate budget units until the complete reorganisation scheme has been sanctioned by the Secretary of State. During the year district health officers were appointed at Gurgaon, Jullundur and Kangra under the scheme for the reorganisation of rural sanitation.

State Faculty of Public Health.

379. After much discussion this long-cherished scheme finally materialised and the first meeting of the Faculty was held in January 1921. The Faculty consists of the following members:—*Officials*—the Sanitary Commissioner (President), the Chemical Examiner, the Bacteriologist, the Sanitary Engineer; *nominated Indian Members*—Dr. A. B. Arora, Health Officer, Lahore, Dr. S. N. Rozdon, Health Officer, Amritsar, Dr. G. C. Sahgal, Health Officer, Jullundur, Dr. M. J. Thakur, Health Officer, Gurgaon district, Dr. Allah Jawaya, Medical Practitioner, Lahore, R. B. Dr. Hira Lal, Medical Practitioner, Lahore. With the aid of the Faculty it will now be possible to give to medical graduates both the training and qualification which formerly required at least a year's residence in England. Next year it may be possible to record very satisfactory progress in the work of engaging qualified health officers.

Education Bureau.

380. Proposals for the creation of a Bureau, having for its object the education of the general public in elementary hygiene, was sanctioned. A whole-time photographer has now been added to the department and work on the preparation of lantern slides from local conditions to illustrate popular lectures is well advanced. When a sufficient number of standard lectures has been prepared, it will be possible to prepare sets of slides for individual districts dealing with matters of special local interest. The Bureau has a great future before it and as work progresses proposals for its extension will be put forward.

Sanitary Board.

381. The Sanitary Board met ten times during the year, 4 times in Simla and 6 times in Lahore. A town-planning committee under the chairmanship of Sir John Maynard was also created during the year. A chemist was appointed in connection with the investigation of the chemical nature of well-water supplies in the Punjab. The balance of Rs. 3·42 lakhs was fully utilized and out of an additional grant of Rs. 4 lakhs a sum of Rs 2·57 lakhs was spent, leaving a balance of Rs. 1·43 lakhs.

The number of non-official Indian members was raised from 2 to 5 and the tenure of office of nominated members fixed at 3 years. The Board made considerable progress in the policy of directing technical sanitary policy. The problem of the ever-open tap is one with which all administrations are faced and the Board adopted the policy of enforcing compulsory metering of private connections, and all grants-in-aid for water supply purposes are now made on condition that this measure is carried out. An enquiry into the expenditure of grants-in-aid revealed many disquieting features and the Board finally decided to adopt the principle of auditing its grants. The systematic investigation of rural water supplies was taken up by the Board and a chemist was placed on special duty under the Sanitary Commissioner for this purpose. Sanction was also obtained to the employment of a geologist, whose duty in the first instance was to examine areas where salt deposits restrict the available water supply. Already valuable results, in the sense that a possible practical remedy has been discovered, have been obtained.

52.—Vaccination.

Expenditure.

382. The total cost of the department (including the Vaccine Institute) during 1920-21 amounted to Rs. 2·09 lakhs, an increase of Rs. ·46 lakhs over last year.

Operations.

383. The average cost of each successful vaccination was Re. 0-4-5 against Re. 0-3-5 in the previous year. The total number of operations performed by all establishments during the year 1920-21 amounted to 916,000, showing a decrease of 12,822. During the year there was an increase in primary vaccination and a decrease in re-vaccination. The decrease in re-vaccination is generally attributed partly to the prevalence of small-pox in a less virulent form and partly in some districts to the non-co operation movement. The percentage of success in primary vaccination was 96·41 as against 97·95 in the previous year, while in the case of re-vaccination it was 72·65 as compared with 76·18. The ratio of persons successfully vaccinated by the district vaccination staff was 37·09 *per mille* of population, as against 37·05 in the previous year. 86 per cent. of the total number of children under one year of age available for operation were successfully vaccinated in the towns in which the Vaccination Act is in force, as against 48 per cent. in those towns in which it is not in force

Punjab Vaccine Institute.

384. The total number of one gramme tubes of vaccine issued by the Punjab Vaccine Institute during the year was 45,637 as compared with 49,507 in the year previous, and the decrease in the quantity issued is chiefly due to a smaller demand for the lymph from places outside the Punjab. Of the 45,687 tubes despatched, results were received in the case of 32,024, showing that 640,070 primary and 216,366 re-vaccinations were performed, with an insertion success of 94·94 per cent. in primary and 73 38 per cent. in re-vaccination, or less than in the previous year. With a view to meeting the enhanced cost of production, the price of a gramme of vaccine was raised from twelve annas to one rupee with effect from 1st April 1920.

Training classes.

385. Ten classes for training of vaccinators in the technique of the manufacture, care and preservation of vaccine were held this year at the Punjab Vaccine Institute, Lahore, between November and March, to which vaccinators from 12 districts were admitted.

CHAPTER VII.

Instruction.

DETAILED information on the subjects dealt with in this chapter will be found in the reports and statistical tables noted below :—

PROVINCIAL REPORTS.

Education.—(1) Report on the Progress of Education for the year 1920-21.

(2) Report on the operations of the Department of Agriculture, Punjab, for the year ending 30th June 1921.

(3) Annual Report on the Punjab Veterinary College and the Civil Veterinary Department, Punjab, for the year 1920-21.

Arts and Sciences.—Report on the working of the Lahore Museum for the year 1920-21.

PUBLICATIONS OF THE GOVERNMENT OF INDIA.

Education, Literature and Press.—Statistics of British India, Volume V, Education.

Statistical Abstracts for British India, Volume IV, Administrative, Judicial, and Local Self-Government.

53.—General System of Public Instruction.

[*Vide* pages 173—184 of the Administration Report for 1911-12.]

54.—Education.

Introductory.

386. Education is in the main a transferred subject, and therefore comes under the control of a minister who is responsible to the Punjab Legislative Council; and the latter body controls the finance. The first Minister for Education is the Hon'ble Khan Bahadur Mian Fazl-i-Husain. European education, however, is under the charge of the Hon'ble Sir John Maynard. The Minister for Education took an early opportunity of explaining to the Council what were to be the watchwords of his policy : "Government intends to pursue an educational policy which is national, economical and makes for efficiency."

General.

387. The number of public educational institutions increased by 377 to 7,559 and the number of scholars by 36,565 to 500,837 (including 61,840 girl pupils). Private institutions now provide instruction for 56,152 scholars. Imperial and provincial revenues provided Rs. 85 lakhs towards expenditure on education, while municipal and district funds supplied nearly Rs. 34 lakhs. The income from fees rose by over Rs. $3\frac{1}{2}$ lakhs to Rs 34·88 lakhs. Government made grants of Rs. 24·20 lakhs to district boards and of Rs. 2·38 to municipalities.

Controlling agencies.

388. Colonel W. T. Wright, M.A., who had held the post of Director for one year, retired from service in December 1920 and Mr. G. Anderson succeeded him in that capacity. Three new appointments and the officers holding them, whether substantively or temporarily, are: (*i*) Registrar of Departmental Examinations, Lala Hari Das, M.A., formerly Inspector of Schools, (*ii*) Inspector of Training Institutions, Lala Ram Chandra, and (*iii*) Inspector of Vernacular Education, Sayad Maqbul Shah, B.A., I.E.S., formerly Inspector of Schools, Multan Division. Each district now has its own inspector, a member of the Punjab Educational Service, who is responsible for the general inspecting and controlling duties of his area. Under the district inspector are assistant district inspectors, each in charge of a specified part of the district. The divisional inspector under the new scheme should be more free from routine work than before, and be able to devote more time to questions of policy and of expansion within his jurisdiction. He has been given a specialist divisional staff to assist him in the task of inspection in special subjects, but has lost the former staff of assistant inspectors. The whole matter was examined in detail at the Conference of inspecting officers held last April, and certain modifications were recommended.

Educational Services.

389. The cadre of the Indian Educational Service increased in numerical strength through promotions from the Punjab Educational Service. There are now 10 and 22 Indian members and European members, respectively, in the service. The revision of the Punjab Educational Service took effect from April 1st, 1920. The strength of the

cadre is now six posts in the selection grade (Rs. 650—30—800); and 68 posts on the ordinary time-scale (Rs. 250—25—500—25—600). The Subordinate Educational Service was also revised, and the new terms came into force on October 1st, 1920. This service is graded, each grade in the new scheme roughly corresponding in pay with that of the next higher grade in the old. Three assistant inspectresses were appointed, Miss M. Dutton, posted as assistant to the Chief Inspectress, Lahore; Mrs. Ponsonby, B.A., B.T., to Rawalpindi, and Miss Uppal to Jullundur.

District boards, municipalities and private agencies.

390. The expenditure of district boards from their own resources was Rs. 23·62 lakhs, as compared with Rs. 17·28 lakhs in the previous year, while that of municipal boards was Rs. 9·31 lakhs, an increase of Rs. 2·37 lakhs over last year's figures. Expenditure from provincial revenues was Rs. 22·47 lakhs. Private agencies appear to be distinctly more active than public bodies. In Rohtak a new and flourishing Jat Heroes Memorial High School was started when the Jat High School was 'nationalised.' In the Jullundur division the Arya Samaj led the way.

Secondary Education (Boys)— (i) Statistics.

391. Secondary schools of all kinds rose from 828 to 969, an increase of 17 per cent., while the number of pupils increased from 163,899 to 188,529, or by 15 per cent. Vernacular middle schools were 615 with 80,978 scholars, as against 491 in 1919-20, with 63,101 scholars. Anglo-vernacular middle schools increased from 170 to 171, the number of pupils rising from 36,330 to 36,474. High schools rose from 167 to 183 in number and their pupils increased from 64,465 to 71,077. Expenditure from all sources was Rs. 51·69 lakhs as against Rs. 40·91 lakhs last year. Receipts from fees increased from Rs. 16·76 lakhs to Rs. 18·71 lakhs. The income from subscriptions and other private sources went up from Rs. 3·22 lakhs to Rs. 4·99 lakhs. Local funds provided Rs. 5·68 lakhs as against Rs 3·59 lakhs last year. Provincial revenues assisted to the extent of Rs. 16·41 lakhs as against Rs 12·19 lakhs, while municipal funds brought up the rear with an actual decrease of Rs. 905. The number of teachers in secondary schools for Indians increased from 7,659 to 9,120. There were 6,074 who were trained or certificated, and 999 who possessed a university degree. Untrained teachers were 3,046.

392. Medical inspection has been re-introduced, and physical training is receiving more attention. Among games cricket tends to decline, football and hockey becoming more popular, while the smaller boys play Indian games. Manual training centres are increasing in number. Agriculture as a part of the vernacular middle school curriculum is well established in most parts of the province. Senior vernacular teachers have been deputed to the Agricultural College, Lyallpur, for a special course in agriculture; and a supply of 38 men so trained has been made available. While very few schools were absolutely unaffected by the storm of non-co-operation at the time, very few were ultimately wrecked. Those schools that had good staffs, and particularly those with good hostel superintendents, emerged with least damage.

(ii) General.

393. The total number of primary schools rose from 5,159 to 5,365. Municipal and district board schools increased by 308, but there is a decline of 120 in aided schools. The decrease in aided schools is largely due to the absorption of such institutions into the local board system. The number of pupils rose from 228,257 to 239,187, an increase of 10,930, giving an average of 45 boys to each school. The strength of the teaching staff rose from 9,796 to 9,803, of whom 5,046 were trained men. The total expenditure for the year was Rs. 23·80 lakhs. Provincial revenues provided Rs. 12·73 lakhs (+ Rs. 1·12 lakhs), district funds Rs. 7·34 lakhs (+ Rs. 1·98 lakhs), municipal funds Rs. 1·71 lakhs (+ Rs. 79,392). Expenditure from endowments and subscriptions also increased. On the other hand, fees provided only Rs. 90,455, a decrease of Rs. 8,251. There were 588 Gurmukhi schools and classes in the province, of which 222 are for boys and 366 for girls. The number of pupils in these schools was 25,786 (8,857 boys and 16,929 girls).

Primary Education (Boys)— (i) Statistics.

394. There has been some improvement in buildings, though in all five divisions the majority of schools are still housed in defective and unsuitable borrowed or rented buildings. All inspectors comment on the value of the new system of physical education which is only just beginning to work its way into the village schools. On the whole, primary education is in a less progressive state than secondary. Though improvements are

(ii) General.

made each year, much has to be done before the standard is really satisfactory. The most important needs are more and better teachers and improved buildings. The five-year programme of expansion is being followed throughout the province, but only the Multan and Jullundur divisions report that the prescribed rate of progress has been maintained. Multan has enforced the Punjab Primary Education Act; Lahore has arranged to enforce it, and some few other cities are considering the question.

Training of teachers—

(i) General.

395. Last year 1,361 men and 329 women were being trained for various branches of the profession; in the year under review the numbers rose to 1,663 men and 394 women. Most normal schools impart a knowledge of the system of accounts prevailing in co-operative societies and supply banks. Courses of lectures on elementary hygiene were given and were much appreciated, and physical training received careful attention.

(ii) Central Training College.

396. The classification of students in the Central Training College shows 102 Hindus, 61 Muhammadans, 29 Sikhs and 7 Christians, no Muhammadan graduate being refused admission. A class for training teachers of clerical and commercial subjects was instituted, and the first course was given to twelve pupils, all graduates. Experiments were made in the junior anglo-vernacular class, in which students wishing to take Hindi and Punjabi received special instruction in the subjects from competent pupil teachers of the B. T. class. Voluntary classes in physiology, hygiene and also in wood work were opened.

(iii) Other institutions.

397. The new manual training room in the Training College, Lyallpur, equipped at a cost of Rs. 2,200, came into use during the year. The Hoshiarpur Training College was opened in September. Furniture and apparatus were provided at a cost of Rs. 10,500. At the close of the year there were 64 students on the rolls, 45 of whom were agriculturists. The enrolment contained 27 Muhammadans, 22 Hindus and 15 Sikhs. The Sanawar Training Class for men had twelve students, three of whom were from the Punjab. The number of new candidates does not seem to rise, the chief reason being that owing to the poor pay and lack of prospects the teaching

profession is unpopular among young men of the European community. At St. Bede's College, Simla, 33 girl students were under training as against 27 in 1919 20. The training class for kindergarten teachers at St. Denys', Murree, has only a small output, but the quality is high.

Professional, technical and special education—

(*i*) Professional.

398. The University Law College had 503 students at the close of the year, of whom 177 were in preparation for the LL.B. examination, and 289 for the first examination in law. The transfer of the Medical School to Amritsar, which took place in October 1920, made it possible to admit a larger number of students to the King Edward Medical College. Three hundred and seventy-seven students were on the rolls in 1920-21, 101 being "freshmen." The Women's Christian Medical College, Ludhiana, continued its useful work. The proportion of its students coming from the Punjab is increasing. There were 32 students in the Unani Tibbia Classes, 30 being Musalmans and two non-Brahmin Hindus. The Ayurvedic Vidyalaya attached to the Dayanand Anglo-Vedic College, Lahore, had 72 students on its list at the end of the year.

(*ii*) Technical.

399. The number of students at the Government School of Engineering, Rasul, increased from 95 to 107. The re-organisation of the engineering services, when introduced, will affect this school, for thereafter only one class of subordinates will be recruited into the Public Works Department. In anticipation of this re-organisation, the standard of the course has been raised. The total on the rolls of the Victoria Diamond Jubilee Technical Institute was 67, as compared with 52 in the previous year. The Mayo School of Arts undertook a considerable amount of special work in addition to the ordinary exercises of its various classes. The school is now under the control of the Director of Industries. The quality of the industrial work in the Reformatory School, Delhi, was high. The school stands pre-eminent in this matter among the industrial schools of the province. The number of boys taking an industrial training continues to show a steady decline. The probable cause is that as soon as a boy's labour is worth anything—and this is quickly the case under present conditions—the father withdraws him from school and puts him to work.

(iii) Special.

400. Two Indian members of the staff of the Punjab Agricultural College, Lyallpur, went to Europe for further studies during the year. The examination for the degree of B.Sc. (Agriculture) was held for the first time. The class for the training of teachers of agriculture continues its useful work, and the third batch of 19 men has been passed out. The number of students in the Government Institute of Commerce, Lahore, rose from 37 to 82, of whom 36 were in the second and 46 in the first year class. The Young Men's Christian Association, Lahore, which has an enrolment of some 500 students, about 95 per cent. being Indians, provides popular classes in typewriting and shorthand.

Female education—(i) Statistics.

401. The year showed a steady expansion in the education of girls. Last year there were 1,074 schools containing 57,732 scholars. This year there are 1,099 schools with 59,205 scholars. High schools are the same in number as before but the number of pupils in them has decreased by 348. Expenditure has increased by nearly 20 per cent., amounting to Rs. 9·91 lakhs as against Rs. 8·15 lakhs in 1919-20.

(ii) The Kinnaird and Queen Mary Colleges.

402. The Kinnaird College reports only 33 students on its rolls, but announces most gratifying examination results, ten girls passing the intermediate examination out of an entry of the same number, and five out of seven candidates passing the B.A. A student of this college, Miss L. Fazl, stood first in English in the University and Miss S. Harkishen Lal headed the list of women candidates in Urdu. Queen Mary College contained 91 girls, one of whom passed the matriculation examination and a second the Munshi examination of the Punjab University.

(iii) Normal schools for women.

403. There are seven Government Normal Schools for women. That at Lahore, which trains senior vernacular teachers for the province and junior vernacular teachers for the division, contains 107 students, 54 in the senior and 53 in the junior vernacular class. The other six schools, situated at Rawalpindi, Sialkot, Gujranwala, Multan, Jullundur and Ludhiana, at present train only junior vernacular teachers and cater mainly for local needs. With the exception of Rawalpindi,

where 50 students can be taken, each of these schools accommodates 40 students. Some few private training classes exist in connection with various secondary schools. Of these, that belonging to the American Mission at Sialkot is by far the best.

(iv) General.

404. The Lady Maclagan Government High School for Girls, Lahore, was opened during the year. It occupies a house generously provided by Rai Bahadur Lala Ganga Ram, C.I.E., and is already full to overflowing. The Victoria School, Lahore, is now an anglo-vernacular middle school. At Amritsar the Dayawanti Sudhar Sabha and Oriental High School has been recognised during the year and is doing good work, while the Punjab Association now maintains eight schools in Lahore, having a total strength of 407 pupils. With the exception of the buildings of the Lady Maclagan High School at Lahore, which is the first girls' school to be opened outside the city in pleasant surroundings, and of the Normal School at Multan now working in a very fine building with an enclosed compound, Government schools for girls are still without their own buildings, but are generally well-equipped. Miss Graham, the Inspectress of Domestic Science, held courses in domestic science, which are stated to have been of real value. Cooking, washing, etc., have been introduced into some day-schools and, wherever possible, classes are held in first aid and in sick nursing. Needlework is particularly well taught in many large schools.

Education of Europeans.
(i) Statistics.

405. The number of public schools for Europeans was reduced by two, owing to the exclusion of the boys' and girls' schools belonging to the Lawrence Royal Military School at Sanawar, which, maintained as it is entirely by the Government of India, is now only connected with the Punjab in that it is inspected by the Punjab Education Department and its pupils appear at departmental examinations. The number of scholars in all public and private schools (the latter being unaided and uninspected) was 2,614, of whom 1,232 were boys and 1,382 girls. The teaching staffs comprised 204 masters and mistresses, of whom 122 were trained and 17 held University degrees. Total expenditure (direct and indirect) amounted to Rs. 11·74 lakhs, met in more or less equal proportions from provincial revenues, fees and other sources. Building

grants were reduced by more than Rs. 12,000 and totalled just over half a lakh.

(ii) General.

406. Forty scholarships were awarded to boys and sixty-five to girls. A special gold medal was given to Parshottam Lal, of St. Anthony's School, Lahore, for gaining the top place in the High School Examination and distinction in no less than seven subjects. The scholarship funds received a notable addition through the munificence of Miss Warburton of Kasauli, who founded a scholarship worth Rs. 1,500 in memory of her father, the late John Paul Warburton, C.I.E., of the Indian Police. Vocational training has made a good beginning at Sanawar, and domestic science and needlework are reported to be improving. The Boy Scout movement has been revived and in some girls' schools the girl guides are active. Physical training throughout the schools is excellent.

Education of Special Classes.

407. There was an increase of 17,264 Muhammadan pupils in institutions of all kinds, and of 15,473 in public institutions. On the other hand, there was a decrease of 19 in Arts Colleges, of 30 in the Agricultural College, and of 68 in industrial schools, but a similar decrease occurred in the case of Hindus and Sikhs at those institutions. The Principal of the Aitchison College, Lahore, reports an increase in the average number of boys attending the College, the number on the rolls at the end of the year being 101. Five out of ten candidates passed the Diploma Examination of 1920. The Cadet Corps and the Boy Scouts are noteworthy features among the various activities of the College.

Education of low castes.

408. The number of low caste scholars in ordinary schools has increased and a number of girls of low caste are now at school. On the whole, the tendency towards the breaking down of social barriers, which was noticed in last year's report, has been well maintained.

Text Book Committee.

409. During the year 274 publications were submitted for consideration as against 287 in the previous year, but the number approved (152) was considerably in excess of last year's figures. The committee has eleven maps or books in the press and about twenty other works in preparation.

An editorial staff has been appointed and is at work on the preparation and revision of text-books. Six new editions of the Hindi and Punjabi Reader Series have already been prepared. The patronage of literature fund had a slightly better year. Sixteen books were considered of which one Urdu, one Hindi and two Panjabi were recommended for awards. The standardisation of technical terms in Punjabi, authorised last year, was almost completed. Considerable discontent was shown during the year by certain publishing firms. The questions which need consideration are whether or not it is advisable and practicable to regulate the price of school books, and whether or not an 'open door' should not be permitted to free competition.

55.—Literature and the Press.

LITERATURE.

410. The number of publications registered during the year was 1,848, or 445 more than that of the previous year. The number of smaller books continued to preponderate, the cost of production having immensely increased. Bulky volumes, unless highly priced or in great demand, such as professional works, text-books or works dealing with current political problems, are not likely to bring much profit to the author or publisher. There were more publications in Punjabi than in any other of the Indian languages. Poetry and religion as usual accounted for the largest number of works. The rise under 'politics' and the fall under 'law' would lead one to suppose that political rather than legal literature engaged the attention of the legal profession. Important works included biographical sketches of the political leaders of India and books dealing with the questions of the Khilafat, Indian Home Rule and the Reforms Scheme. On the whole the literary output was superior to that of the preceding year.

PRESS.

Newspapers.

411. The total number of newspapers and periodicals of all kinds published in the Punjab during the whole or part of the year under report was 277, as against 276 in 1919. The number in existence at the end of the year was 201. Of the 277 newspapers, 178 were in Urdu, 49 in English, 31 in Gurmukhi, 15 in Hindi, 3 bi-lingual and one tri-lingual. The number of daily

newspapers was 36, weekly 76 and monthly 131. The remainder appeared at irregular intervals. Of the 36 daily newspapers, 3 were in English, 4 in Gurmukhi, 1 in Hindi, and the remaining 28 in Urdu, of which one was owned and edited by an Indian Christian, 17 represented the Hindu and 8 the Muhammadan community, and of the remainder one was a war publication and the other the organ of the North-Western Railway Association. 169 newspapers and periodicals were published in Lahore and 47 in Amritsar. Other centres of journalistic activity were Simla (10), the Gurdaspur district (9), Gujranwala (8), Ferozepore and Rawalpindi (5 each) and Sialkot (4).

Circulation.

412. The combined circulation of the whole Punjab press is estimated at 358,661 copies, as compared with 342,354 and 320,000 in 1919 and 1918, respectively. The following were the more important newspapers in the province :—

English.

1. *Civil and Military Gazette* (English, daily).
2. *Tribune* (Hindu, daily).
3. *Liberal* (Hindu, weekly).
4. *Khalsa Advocate* (Sikh, weekly).
5. *Sikh* (Sikh, weekly).

Vernacular.

(*a*) **Urdu.**

6. *Himala* (Hindu, weekly).
7. *Zemindar* (Muhammadan, daily).
8. *Bande Mataram* (Hindu, dally).
9. *Paisa Akhbar* (Muhammadan, weekly).
10. *Loyal Gazette* (Sikh, weekly).
11. *Partap* (Hindu, daily).
12. *Parkash* (Arya, weekly).
13. *Siyasat* (Muhammadan, daily).
14. *Arya Gazette* (Arya, weekly).
15. *Vakil* (Muhammadan, bi-weekly).
16. *Al-Munir* (Muhammadan, weekly).
17. *Akhbar-i-Am* (Hindu, bi-weekly).

18. *Khalsa Akhbar* (Sikh, weekly).
19. *Rajput Gazette* (Hindu, weekly).
20. *Shanti* (Hindu, daily).
21. *Al-Fazal* (Ahmadiya, bi-weekly).
22. *Ahl-i-Hadis* (Muhammadan, weekly).
23. *Public* (Hindu, daily).
24. *Desh* (Hindu, daily).
25. *Brahman Samachar* (Hindu, weekly).
26. *Aftab** (Muhammadan, daily).
27. *Varat* (Hindu, weekly).
28. *Sadaqat* (Muhammadan, daily).
29. *Kashmiri Magazine* (Muhammadan, weekly).
30. *Watan* (Muhammadan, weekly).
31. *Jat Gazette* (Hindu, weekly).
32. *India** (Sikh, weekly).
33. *Ittifaq** (Muhammadan, daily).

(*b*) **Gurmukhi.**

34. *Khalsa Samachar* (Sikh, weekly).
35. *Akali* (Sikh, daily).
36. *Panch* (Sikh, weekly).
37. *Panth Sewak* (Sikh, weekly).
38. *Punjab Darpan* (Sikh, weekly).
39. *Satyug* (Sikh, weekly).
40. *Bir** (Sikh, weekly).

Of these, the circulation of No 6 was claimed to be above 7,000 copies; of Nos. 2 and 7 above 6,000, of No. 8 above 5,000; of Nos. 1, 9 and 34 above 3,000; of No. 10 3,000, of Nos. 11 to 15 and 35 to 37 above 2,000; of Nos 16 to 25 and 38 above 1,000; of Nos. 26 and 27 1,000; and of the rest between 500 and 1,000.

Executive action.

413. The total number of declarations filed under section 4 of Act XXV of 1867 during the year was 97, and under section 5 of the Act, 194. Security was demanded on 14 occasions by district magistrates. These demands were made either on original declaration or on re-declaration or by varying a previous order.

*Has since stopped publication.

No demand was made by the Local Government in the year under report. Securities of three presses, Gulzar-i-Muhammadi Press, Muslim Printing Press and People's Press of Lahore were forfeited for printing objectionable articles in the issues of the *Siyasat*, *Zamindar* and *Akali* newspapers, respectively. One newspaper (*Akali*) editor was prosecuted and convicted under section 124-A and 153-A of the Indian Penal Code for publishing objectionable articles on non-co-operation. Formal warnings were administered through district magistrates to newspapers and presses as follows :—

(*a*) Sixteen for publishing objectionable articles.
(*b*) Four for publishing a false report charging some constables with cutting a telegraph wire.
(*c*) Two for publishing articles likely to incite to acts of violence.
(*d*) Two for various other reasons.

Thirty-three publications were proscribed under section 12 (1) of the Indian Press Act (I of 1910), and twelve warnings were given under section 3 of XXV of 1867.

56.—Literary Societies.

[*Vide* pages 196 and 197 of the Administration Report for the year 1911-12.]

57.—Art and Sciences.

Lahore Museum.

414. Progress continued in the arrangement of the Tibetan gallery, and improvements were carried out in the distribution of carpet and embroidery exhibits of the section of the museum which is devoted to applied arts. An art and craft gallery has now been opened, from which exhibits for the annual British Industries fair in London will be despatched. This province's first exhibition at the London fair was held in February last. A sectional catalogue of Indian paintings with 23 plates in colour and collotype will shortly be printed for the benefit of the public.

Exhibition.

415. The arched roof of the central gallery has been dismantled and a new wooden roof constructed to prevent leakages and admit more light.

Buildings.

416. The total number of visitors during the year was 463,283, with a daily average attendance of 1,316, as compared with 391,660 and a daily average of 1,119, in the previous year. The number of female visitors during the days specially set apart for them was 6,507 against 7,556 in 1919-20, the decrease being due to the closing of the main gate on account of the repairs in the central gallery. Wednesday was, as usual, observed as students' day, but only the students of the Mayo School of Arts derived benefit from this concession. The conduct of the public in the museum was good.

Visitors.

417. Of the fourteen lantern lectures proposed eleven were delivered, the average attendance being 135, as compared with 149 in the previous year. Lantern slides were lent throughout the province and to the North-West Frontier Province, Delhi and Cawnpore. The lecture hall and the lantern were also lent on various occasions for educational purposes. Museum exhibits were sent out on loan to the *Mayo School* of Arts, the Chiefs' College and the Society for *Promoting* Scientific *Knowledge*.

Educational work of the Museum.

418. The Museum acquired a variety of exhibits during the year, including some interesting Nepalese metal work, beautifully modelled images of Manjusri and Chintamani, and a number of additions to the collection of textile art. The accessions to the painting section were not numerous but mention may be made of the Abhisarika Naiyka and the Gagendra Mokhsha. A set of 34 metal seals, mostly of the Sikh period, was lent by the Punjab Government, while other provinces presented eight silver coins. Sixty-eight books were received gratis and fifteen more were purchased out of the museum fund.

Acquisition.

419. A considerable amount of disinfection work of textiles was carried out under the supervision of the Archæological Chemist in India, hydrocyanic acid being used to preserve exhibits such as carpets and embroidery. Proper labelling and arrangements were completed in the textile, musical instruments and armoury sections.

Work done in the Museum.

420. Expenditure remained within the sanctioned grant.

Finance.

CHAPTER VIII.

Archæology.

DETAILED information on the subject of this chapter will be found in the annual progress report of the Superintendent, Hindu and Buddhist Monuments, Northern Circle, Lahore, and of the Superintendent Muhammadan and British Monuments, Northern Circle, Agra, for the year ending 31st March 1921, and in the Administration Report of the Buildings and Roads Branch, Public Works Department, Punjab, for the year 1920-21.

58.—Archæology.

HINDU AND BUDDHIST MONUMENTS.

General.

421. During the year under review the total expenditure on the preservation and exploration of Hindu and Buddhist monuments in the Punjab amounted to Rs. 14,558, out of which Rs. 858 were devoted to annual maintenance charges The special works of conservation and exploration comprised (*a*) repairs to the temples and other remains in the ancient Hindu Fort at Amb ; (*b*) conservation of the semi-Kashmirian temple and gateway at Malot, in the Salt Range ; (*c*) the dismantling of the modern protection shed from over the rock-inscriptions at Kanihyara ; (*d*) repairs to the ancient temple in the Nurpur Fort ; (*e*) the fort at Kotla ; (*f*) the Kangra Fort ; (*g*) the Baijnath temple ; (*h*) demarcation with boundary pillars of the area declared to be protected under the Act at Sunnet, in the Ludhiana district ; and (*i*) exploration of certain ancient mounds at Harappa, in the Montgomery district.

Exploration.

422. The conservation work carried out during the year does not call for any special remarks, but a brief account of the excavations at Harappa, in the Montgomery District, may prove of interest. The work, which was done in January and February 1921 under the personal supervision of the Superintendent, is the first attempt at the scientific exploration of this ancient city site, which General Cunnigham was inclined to identify as the city of po-fa-to or po-fa-to-lo, where the Chinese pilgrim, Hiuen Tsang, halted for two months in order to study the principles of the sect of Sammitiyas, and which at that time was densely populated and provided with four Buddhist stupas and twelve monasteries containing about a thousand monks and twenty Brahmanical temples. The

remains that now mark the site consist of a series of mounds, six of which stand out prominently above the level of the surrounding fields. Three of these mounds were selected for preliminary excavations and acquired under the Land Acquisition Act. The ruins, though fragmentary, possess a peculiar interest, as they are among the earliest brick remains yet unearthed in India and have also yielded a valuable collection of portable antiquities, including two seals engraved in unknown characters. Other relics comprise a pair of bangles, executed with a high degree of artistic excellence, and a few plain glass bangles, which may prove to be the earliest specimens of glass found in India. The pottery unearthed at Harappa varies largely in type and size, from large water-pots to the smallest objects of domestic use, such as children's toy carts and ink-pots. Those interested in this subject will find fuller details in the annual progress report of the Superintendent, Hindu and Buddhist Monuments, Northern Circle, Lahore.

MUHAMMADAN AND BRITISH MONUMENTS.

Expenditure.

423 In the Punjab a sum of Rs. 70,390 in all was expended on the conservation of Muhammadan and British monuments during the year, Rs. 32,630 being spent on maintenance and annual repairs and the residue on special repairs. Among the latter, the principal works of conservation were in connection with the historical monuments of Lahore.

Lahore.

424. Extensive repairs were carried out at the tomb of Asaf Khan at Shahdara—the Persian prime minister of Jahangir, to whose influence is said to be largely due the predominantly Persian character of the Mughal buildings at Lahore. Work on its dangerously dilapidated garden walls had been for the most part completed during the previous year, and in 1920-21 efforts were mainly directed towards the restoration of the old *lakhauri* brick causeways intersecting the garden, and of the octagonal brick platform on which the tomb stands. In the adjoining Akbari Sarai the department carried out the re-metalling of the intersecting roads, the condition of which had seriously deteriorated, the repair of the enclosing *dalans* of the sarai, and the re-setting of displaced portions of the red stone facing of the mosque. In Jahangir's tomb here, the honeycombed plaster work of the domed ceiling

of the crypt was repaired. A dilapidated portion of the mirror-ornamented ceiling of the Shish Mahal in the Lahore Fort was repaired. The Chauburji at Lahore also received attention during the past year, and Rs. 1,490 were spent on laying with kankar the main roadway through the ruined gate and in providing brick on edge floors to the side chambers. The site was also enclosed with wire fencing, and the area levelled, grassed and planted with trees. In the Gulabi Bagh, on the Shalimar Road, a pathway to connect the entrance gate with Dai Angah's Tomb in the middle of the remains of the old garden (now in private possession and given over to cultivation) was begun and a sum of Rs. 420 spent on the work.

Northern Punjab.

425. At Attock, work on the conservation of the Begam ki Sarai, one of the old Mughal caravan sarais that marked the royal highway from the Indus across to Bengal was taken in hand and Rs. 3,040 spent on repairs, which consisted principally in underpinning the undermined portions of the old walls and the removal of the remains of a modern bungalow within the area. At Hasan Abdal, on the conservation of the monuments in the vicinity of the so-called Tomb of Lalla Rukh, Rs. 380 were spent. The work principally comprised the underpinning of the Hakim's Tomb and its platform and the clearance of the site generally; plans for the lay-out of which as a garden will, it is hoped, shortly be carried into effect. The sarcophagus of the Lalla Rukh Tomb, a monolithic block of *abri*, was taken to Agra for repair under the personal supervision of the Archæological Superintendent.

Miscellaneous.

426. Rs. 250 were spent on minor items of repair to the Akbari Baoli at Guzerat—principally the clearance of accumulated silt. At Thanesar, in the Karnal district, special repairs to the Patthar Mosque, a small red stone building remarkable for its minars and dating probably from the end of the fourteenth century, were begun and Rs. 300 spent on the purchase of red sandstone for the repair of the floor of the prayer chamber, and for a new *jali* window to repeat the design of an existing one. At Sonepat, on the tomb of Khwaja Khizr, Rs. 3,920 were spent principally on the underpinning of the dilapidated wall of the terrace, on which the tomb is elevated, and the relaying of the concrete floor and platform. A number of Kos Minars, marking the royal route of Mughal days in